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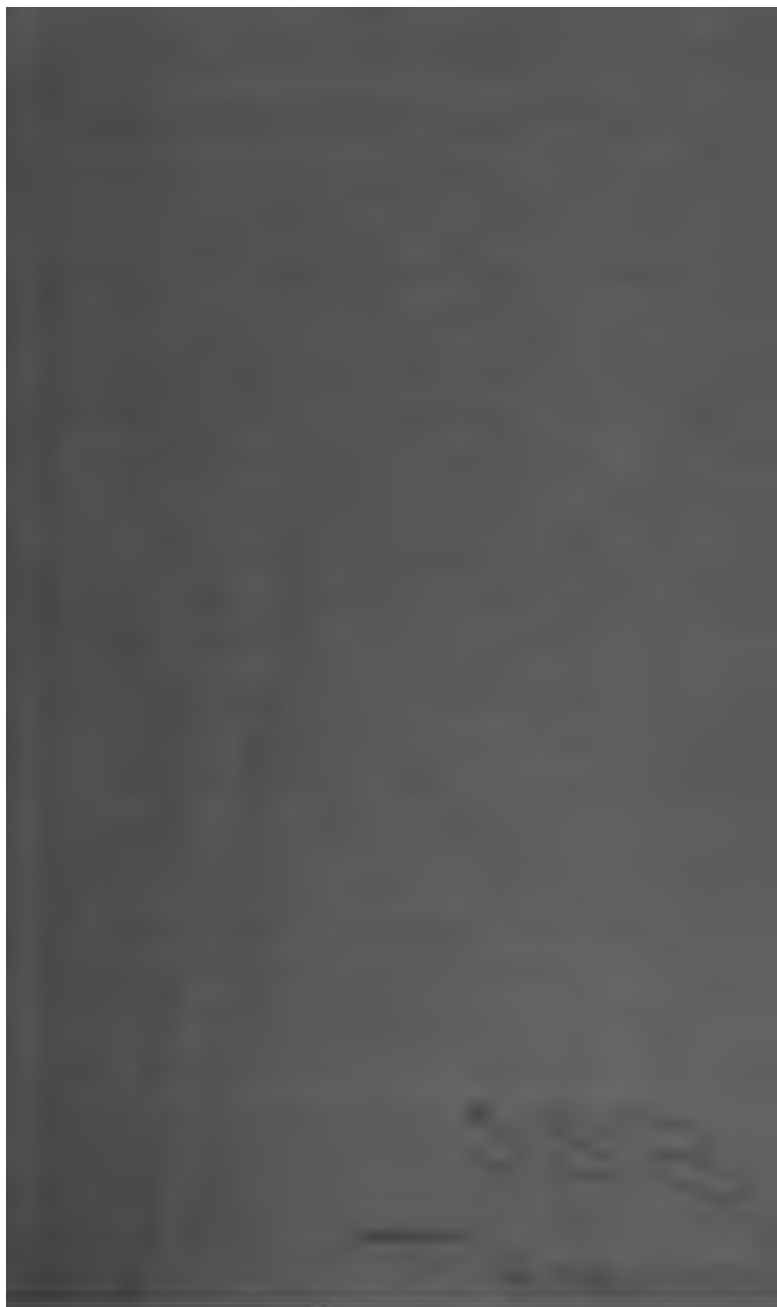
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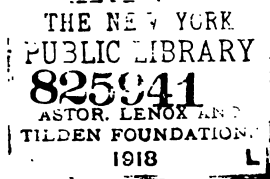
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PREFATORY NOTE

EVERY period is transitional, and every age represents a crisis; but the generation and more which has passed since the close of the Civil War becomes, as seen in lengthening perspective, peculiarly transitional, critical, and formative. In no part of our manifold human endeavor do the great movements and elements of the last forty years emerge more significantly than in the educational. It has, therefore, seemed worth while, under the persuasiveness of literary editors and leaders in education, to write this history.

The book represents a wider field than most of my writing. It is concerned with other parts of the educational system than the college and university, although the college and university are not passed over. I therefore give the volume to all fellow laborers, of whatever name or environment, who have to do with that most creative force in human affairs, which we call education.

C. F. T.

WESTERN RESERVE UNIVERSITY,
CLEVELAND.



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EDUCATION IN THE UNITED STATES

CHAPTER I

INTRODUCTION

I PROPOSE to write a history of education in the American democracy for the forty years and more which have passed since the close of the Civil War.

Education in a democracy is more important than education in either a theocracy or a political monarchy. In a government controlled by a church, the forces which the priest represents may be sufficient to preserve good order among the people and to promote their advancement. In a political monarchy, the ruler may by arms or other force control his subjects, although, of course, he cannot cause his people to progress without the use of those conditions and motives which are called educational. But in a democracy the people represent a power at once so mobile, so irresponsible, and so strong that its very continuance depends upon the enlightenment and

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the steadying forces which education alone gives. The greater the political freedom of a nation the more important education becomes. In the American democracy education is of primary importance for a further reason. The governing forces of this democracy are constantly and greatly enlarged by accession from peoples who are neither American in origin nor accustomed to democratic institutions. Education is the most comprehensive and most potent force for the conversion of the vast and the diverse European populations, who are entering the United States, into American citizens.

The history of education in the democracy of the United States embodies several distinct elements. The education itself represents many diverse types. It represents a collection of educational units. The largest unit is the state. It embodies distinctively the political doctrine of state rights. The organization and progress of education, however, are proved to manifest a vast variety of beginnings and methods of growth. Yet, in this diversity will be found an increasing unity. Changes which are made in one commonwealth are usually found not to be possessed by that commonwealth.

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wealth alone. The newspaper, educational conventions, and many educational associations make common property of educational ideals and ideas.

In this history of forty years of education, as in advancing civilization itself, three conceptions are found prevailing: (1) the idea of liberty and consequent enlargement of the field and function of education; (2) the idea of increasing force devoted to education, and a consequent increasing value of results secured through education; and (3) the idea of enrichment, with the effect of the consequent improvement of the quality of the education, which the state directly or indirectly gives to the people. Liberty, force, enrichment of life and education are the three conceptions which receive illustration in this history. Out of these conceptions, and to be measured by them, is this history written.

The history is primarily related to the forty and more years which have passed since the end of the great war. The reasons of this limitation, aside from the necessary conditions of time and space, are that these two score years represent a distinct educational revival.

The intellectual movement of society in the

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last forty years in America has been a movement educational. It has created new educational forces; it has raised educational ideals; it has improved educational methods; its progress has influenced institutions elementary and higher. This movement is akin to the educational revival of the fourth decade of the same century, and also, if the leap in time and place be not too long or too abrupt, it is not unlike the great English renaissance of the thirteenth century, in which many students moved from Paris to Oxford, and in which were founded on the Isis the colleges of Balliol and Merton.

The causes of this movement are manifold. The first, a permanent cause, or rather condition, is found in the idealism of the American character. Judged superficially America is materialistic; judged fundamentally it is idealistic. Idealism is structural in the American character. In his superficial relations no man of the race is more devoted than the American to what can be seen, weighed, touched, and measured, but the fundamental element of imagination that is in him is of primary significance. Even his commercial success has its chief organization in his imagination. The

INTRODUCTION

Puritan was primarily a moral idealist; and it is the Puritan element of the nineteenth century which has dominated New England, as New England has dominated, as an ethical force, the nation. But the idealism was a permanent condition. It alone, however, would fail to explain the awakening of the American people to their educational concerns.

A further cause of the renaissance of the last forty years lies in the great Civil War itself. War always quickens a nation, if it does not thoroughly decimate its population. To people fighting for what they are pleased to regard as a moral or religious principle, war is often a new baptism of force. One cause of the unique and splendid efflorescence of the age of Pericles lay in the triumph of Greece over Persia. One never forgets that the foundation of the University of Leyden represents not simply the endowment of the University by William of Orange, but also the interest of the people in education while they were still suffering from the horrors of war. Neither can one fail to recall the founding of the University of Berlin at a time when it was doubtful whether there would be a Prussia at all to support a national school.

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In America one also likes to remember that in the year 1862 was passed the Morrill Act introducing higher education in many states and enlarging it in all. War summons a people to the discrimination of the values which help and constitute human character and national life. It moves the will, as well as quickens passions. It represents concerted action. It stirs up latent energy; it usually serves to assure a nation of its having resources and capacities of which it had never dreamed. In such a revival of mind and heart, all the people are easily attracted towards the institutions and methods of education.

Furthermore, for a generation previous to the year 1861, the intelligence and the moral idealism of the American people of the North had been directed to the preservation of the political union of the several states and to the freeing of the slave. In the South during the same period, the interests of the people had been directed toward the preservation of the integrity of the individual commonwealth. The questions thus involved were decided by the sword. The permanent idealism of the American people requires that some questions of large relations shall be under discus-

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The time-spirit flung the educational question before them. Questions of theology or of the church might have emerged, for the American people were and are religious; but the Church had hardly recovered from the doctrinal debates and ecclesiastical divisions of the early decades of the century. Domestic questions, too, touching functions and integrity of the family might have been presented. But in the year 1866 the increase of wealth and the growth of municipal centralization had not subjected the chief domestic and social institutions to the strain by which they have since been tried. The question, therefore, of education was the question which, with the utmost urgency, was laid before and upon the American people.

Another cause is found, moreover, in the presence, in the last forty years of the century, of great personalities who were devoting themselves to the cause of education. It was an able, happy, and unique company of educationists. Among them were found philosophers, executives, historians, and teachers. The science of education was studied anew and thoroughly. To the administration of public school and college were devoted high-

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est abilities. The history of education was rewritten by many men, each offering his interpretation, and each in turn becoming a prophet of new educational methods. Behind the whole educational advancement was a large body of noble and able men, thinking, studying, initiating. It was the golden age of education. It was a period in which there were assembled as noble a body of educationists in their narrow field as were — to take a remote figure — the orators, the philosophers, the poets, and the historians of the time of Pericles.

An additional cause of the educational revival lies in the vast immigration which the country has received since the close of the Civil War. The number of persons who have entered this country and have taken up permanent home here in the last forty years is not far from twenty millions. Some have come from English-speaking lands, bearing our Anglo-Saxon heritage. Others have come bearing this heritage, though not speaking the English tongue. Many have come from the Romance and from the Slav peoples, aliens in speech or in atmosphere. The native people have realized that :

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transmutation of these great numbers of foreigners into worthy American citizenship, education is the chief force. The church American was, if Catholic, limited in its conception of the duty and the immigrant; and if Protestant, indifferent or unable. Therefore, education was obliged to become the chief reliance in the work of individual and national transmutation.

A progressive or regressive movement, moreover, in education does not occur alone. It is at once a cause and a result. It is a reflex of general social conditions. The educational advance of the last century was the result of the general advancement of the community. The educational advance, too, manifested itself in various signs of progress, which became in turn starting-points for still further advancement.

In this period, education has been concerned, as it always is, with at least two relations of the individual: his own personality and his membership in the community. Education is either primarily individualistic or primarily communistic. The conception of education which prevailed, with, of course, various exceptions and qualifications, in the

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earlier part of the period under review was individualistic.

But education has relation also to the place of man as a member of human society. The communistic basis, therefore, emerged in the later period of our history. It was, in a sense, a revival of the education which Milton set forth in eloquent phrases. It concerned making man a participator in the life of the race. It represented him standing at once as the heir of the achievements and attainments of the past, and also as being a testator who was to transmit what he had received to the following generation, only enlarged and made finer. The basis was changed from the egoistic and selfward to the altruistic. The relation of these two forces, the egoistic and the altruistic, represent no small share of the tendencies and movements of education of the period. Some of these tendencies and movements as manifested in significant facts will be considered in the next chapter.

CHAPTER II

FACTS OF THE PROGRESSIVE MOVEMENT

THE facts regarding the development of the educational interests of the United States in the last forty years are scattered through many publications. These publications are of immense variety. Some are made by the individual states, others by individual cities, others by the national Government. Those made by the national Government are largely found in the annual and other reports of the Commissioner of Education and also in the Census Reports.

From these diverse sources have been gathered the following facts. In an age of materialism they serve as important evidence of the value of the idealism possessing the American people.

In the year 1870 the total population of the United States was thirty-eight millions; the total school population, twelve millions; the total enrollment in the schools, seven millions. In the year 1880 the total population had

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increased to fifty millions; the total school population, to fifteen millions; and the total enrollment, to ten millions. In the year 1890 a still further increase had occurred, causing the first-named item to be sixty-two millions; the second-named, eighteen millions; and the third-named, thirteen millions. Ten years after, in 1900, the population had come to amount to seventy-five millions; the school population, to twenty-two; and the total enrollment in the schools, to fifteen millions. By the year 1908 it was estimated that a still further increase had occurred to the effect that the total population was eighty-seven millions; the total school population, twenty-four millions; and the total enrollment in the schools, seventeen millions. The total increase of the population from 1870 was apparently 83%, the increase of the total school population in these years was 91%, the percentage of increase of enrollment in the same period was 125%.

The value of all the property of the country and of the expenditures for the common schools in these years manifests a similar increase, the increase in the expenditures of the common schools being large. In the year 1870

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the total true value of real and personal property was thirty billion dollars, the total expenses of common schools, sixty-nine millions. In the year 1880 the total value had increased to forty-three billions, and the expenses of the common schools, to seventy-eight millions. In 1890 the value had been further increased to sixty-five billions and the expenditures for common schools amounted to one hundred and forty millions. In the year 1900 the total value had become eighty-eight billions, and the expenditures made for common schools, two hundred and fifteen millions. In the year 1908 the latter item had still further increased to three hundred and seventy-one millions.

In the year 1870 there was expended for every pupil in the common schools fifteen dollars. In 1880 the amount had fallen to twelve dollars; in 1890 it had increased to seventeen dollars; in 1900, to twenty dollars; and in 1904, to twenty-four dollars. In 1908 the expenditure per pupil had increased to thirty dollars, just double the amount of 1870. In the year 1870 the amount expended in the common schools for each person of the population was one dollar and seventy-four cents; in 1880, one dollar and fifty-six cents; in 1890,

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two dollars and twenty-four cents; in 1900, two dollars and eighty-four cents; and in 1903-04, it was estimated that the expenses had increased to three dollars and thirty-six cents. In 1908 the per capita expenses had increased to four dollars and twenty-seven cents. In the first of these years, 1870, the total value of school property was one hundred and forty-four millions; in 1880, two hundred and ten millions; in 1890, three hundred and forty-two millions; and in 1900, five hundred and fifty millions. It was estimated that the total value of the school property in 1904 was six hundred and eighty-five millions, and in 1908, nine hundred and forty-five millions. In the same years the value of the school property per capita has regularly increased from three dollars to four, from four to five, from five to seven, and from seven to ten dollars. The revenue for the common schools was ninety-five million dollars in 1870; in 1880 it had fallen to eighty-three millions, by 1890 it had sprung up to one hundred and forty-three millions, and in 1900 to two hundred and nineteen millions. The increase continued in the first years of the first decade of the new century, and after four years the revenue had

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come to be two hundred and seventy-nine millions. Four years later, in 1908, the total revenue had increased to three hundred and eighty two millions.

The larger share of this revenue was raised in each year by taxation, by both the state and the local corporations. The income derived from local taxation is far greater than is derived from what is called "state taxation." In the year 1870, the income from the permanent funds and from lands was less than four million dollars. In the rich years of 1890 and 1900 this income was respectively seven millions and nine millions. In the same years the total income from state taxation was only twenty-six millions and thirty-seven millions. The individual city and town has itself largely supported its own schools.

The revenues of the schools are spent in a vast variety of forms, but the expenditure for instruction is by far the largest element, as it ought to be. In the year 1880, the salaries of teachers and superintendents consumed fifty-six million dollars, and the expenditure for buildings, furnishing, and sites of buildings was about nine millions. All other purposes represent twelve millions. In 1890 ninety-

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one millions were consumed in salaries, twenty-six millions in materialities, and twenty-two millions in other expenses. In the year 1900 the items had increased, respectively, to one hundred thirty-seven millions, thirty-five millions, and forty-one millions. In the year 1904 each item also manifests a still further augmentation, amounting to one hundred sixty-seven millions, forty-nine millions, and fifty millions. In 1908 these amounts had risen to, respectively, two hundred and nineteen millions, seventy-three millions, and seventy-eight millions.

It may be worth while to compare the expenditures for schools with expenditures made in other departments of the government. In the year 1870 the War Department spent thirty-five million dollars, the Navy nineteen millions, and there were spent in pensions thirty-four millions. In the year 1880, the appropriations for the War Department and the Navy had fallen to thirty-eight millions and to thirteen respectively, and the pension fund had increased to fifty-six millions. In the year 1890, forty-eight millions were given to the War Department, twenty-two millions to the Navy, and pensions consumed one hundred

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and seven millions. In the year 1900 the amount given to the War Department had increased threefold and to the Navy more than twofold, and the payment on account of pensions amounted to one hundred and forty millions. In the year 1908 a large increase is to be noted in the three departments: for War, one hundred and seventy-eight millions; for the Navy, one hundred and eighteen millions; for pensions, one hundred and fifty-three millions.

A similar increase in the manufacturing interests of the country is also to be noted. In 1870 the number of establishments was two hundred and fifty-two thousand; in 1880 two hundred and fifty-three thousand; in 1890, three hundred and fifty-five thousand; in 1900, five hundred and twelve thousand, and in 1905, five hundred and thirty-three thousand. The capital invested shows the following increase: from two billions to a sum approximately three billions, from this sum to more than six billions, and from this amount to more than nine. In 1905 the amount of capital was estimated at thirteen billions eight hundred millions.

The expenditures made for public schools in the different sections of the country exhibit

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the following impressive facts: In 1871 in the North Atlantic States were spent twenty-nine millions, in the South Atlantic three millions, in the North Central twenty-eight millions, in the South Central four millions, and in the Western two millions; in 1880, in the corresponding districts, twenty-eight millions, five, thirty-five, and four, and four also in the Western States. In 1890 the North Atlantic States represent forty-eight millions, South Atlantic eight, North Central sixty-two, South Central ten, and Western also ten. In 1900 the five districts spent respectively eighty-four, thirteen, eighty-six, fifteen, and seventeen millions. In 1908 the North Atlantic States spent one hundred and thirty-three millions, South Atlantic twenty-two, North Central one hundred and forty-eight, South Central thirty, and Western thirty-six.

Up to this point the financial element in these comparative statements has, on the whole, been full of significance and of happiness. They give evidence that the community has been willing to tax itself in increasing amounts, and in not a few cases in increasing percentages, for the promotion of the cause of education. But in one important point,

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the increase not only has not continued, but even has diminished. The salaries received by the teachers in the common schools of the country have not advanced, with the advancing wealth or with the progress of other elements of a noble civilization. In the year 1875 the average salary each month of the men engaged in teaching was fifty-one dollars and seventy-five cents, but in the year 1880 this small sum had fallen to forty-two dollars and forty-seven cents. An increase has occurred since that time; but it has been small — the average salary being in 1890 forty-four dollars and sixty-eight cents; in 1900, forty-six dollars and fifty-three cents; and in 1904, fifty dollars and ninety-six cents. In the year 1908 the average salary per month for men had risen to sixty-two dollars and thirty-five cents. Therefore, the average monthly wage of men teaching in the schools of the United States was but eleven dollars more in 1908 than it was in 1870. The condition respecting the women who are teaching is not relatively quite so bad, for with them has occurred a slightly greater increase. In 1875 the women teachers were receiving each month thirty-seven dollars and six cents. In 1880 this amount had

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fallen to thirty-three dollars and ninety-five cents. In 1890 it manifested an increase, the amount being thirty-six dollars and thirty-three cents. In 1900 a still further increase was made, the amount being thirty-eight dollars and ninety-three cents. In 1904 the average monthly wage was forty-one dollars and fifty-four cents. In 1908 this had become fifty-one dollars and sixty-one cents.

The number of days per year in which each member of the population attends school also shows a large increase. Regarding the year as consisting of two hundred school-days, in 1870 each citizen received 3.36 years of schooling; in 1880, the increase was to 3.96 years, and in 1900 there was a yet further enlargement, the number of years being 5.25. This comparison represents private, as well as public, schools.

The average length of the year, too, in the public schools shows a considerable increase. In the North Atlantic States the public school year has from 1870 to 1908 increased from 152 days to 180 days; in the South Atlantic States, in the same period, from 97 days to 124 days; in the South Central States, from 91 days to 118 days; in the North Central States, from

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134 days to 162 days; and in the Western division, the largest increase, from 119.9 days to 163 days. The increase in all the states and the territories is from 132 days of 1870 to 154 days of 1908.

The number of schoolteachers in this series of years has been, in 1870, two hundred and twenty thousand; in 1880, two hundred and eighty-six thousand; in 1890, three hundred and sixty-four thousand; in 1900, four hundred and twenty-three thousand; in 1904, four hundred and fifty-five thousand; and in 1908, four hundred and ninety-five thousand. The increase, too, in the number of schoolhouses manifests a similar enlargement. In 1870 the number of schoolhouses was one hundred and thirty-two thousand; in 1880, one hundred and seventy-eight thousand; in 1890, two hundred and twenty-four thousand; in 1900, two hundred and forty-eight thousand; in 1904, two hundred and fifty-seven thousand; and in 1908, two hundred and sixty-two thousand.

The following summary has been furnished me by the United States Commissioner of Education:—

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INCOME AND EXPENDITURE

	1870-1	1880	1890	1900	1908
Income of permanent school funds and rent of school lands.....	97,744,765	99,152,274	992,419,292
Income from state taxes.....	....	....	27,345,325	27,886,740	28,097,151
Income from local taxes.....	....	....	97,322,438	149,486,845	259,340,900
Income from other sources, state and local.....	....	....	11,892,292	23,240,130	42,068,133
Total revenue (excluding balances on hand and proceeds of bond sales).....	....	....	145,194,806	219,765,989	381,919,596
School expenditure for sites, buildings, furniture, libraries, and apparatus.....	....	....	26,207,041	35,450,920	79,040,408
School expenditure for teachers' and superintendents' salaries.....	....	....	91,836,484	137,687,746	219,780,123
School expenditure for all other purposes, principally maintenance.....	....	....	92,468,190	41,898,058	77,923,879
Total expenditure, excluding payments of bonds.....	....	....	140,506,715	214,966,618	371,544,410
School expenditure for North Atlantic.....	69,107,618	78,094,687	48,023,492	85,910,564	133,358,714
School expenditure for South Atlantic.....	29,790,836	28,589,038	8,767,165	12,921,797	22,907,468
School expenditure for South Central.....	3,781,581	6,180,498	10,678,680	14,753,916	30,113,283
School expenditure for North Central.....	4,354,854	4,372,993	62,425,685	86,166,827	147,071,563
School expenditure for Western.....	26,450,038	35,265,653	10,213,815	17,212,614	36,593,467
School expenditure per pupil (av. attendance).....	2,244,399	4,997,675	17.23	20.21	30.55
School expenditure per capita (population).....	16.60	12.71	2.84	2.84	4.27
Average teacher's salary in common schools.....	....	....	....	....	53.48
Average man's salary in common schools.....	....	....	....	....	62.35
Average woman's salary in common schools.....	....	....	....	....	51.61
Total expenditure for War Department.....	85,799,991	28,116,916	47,980,665	137,680,369	179,080,890
Total expenditure for Navy Department.....	19,431,047	13,550,064	22,347,101	26,378,312	119,780,239
Total expenditure for pensions.....	34,445,865	56,777,174	106,936,855	140,877,316	153,892,467

• 1878

THE PROGRESSIVE MOVEMENT

POPULATION AND PROPERTY

	1870-1	1880	1890	1900	1908
Total population of the United States...	38,358,371	50,155,783	62,682,250	75,272,683	*86,874,990
School population of the United States...	12,065,445	15,065,767	18,543,301	22,253,080	24,613,763
School enrollment of the United States...	7,561,582	9,367,505	12,722,581	15,508,110	17,061,962
Total value of all property in the United States.....	.....	\$43,642,000,000	\$64,829,040,611	\$88,517,306,775	....
Total value of school property in the United States.....	\$145,818,708	\$209,571,718	\$342,551,791	\$550,069,217	\$945,395,162
Per capita value of school property.....	\$5.75	\$4.18	\$5.47	\$7.31	\$10.88
Number of schoolhouses.....	132,119	178,222	224,526	248,279	292,170
Number of teachers.....	220,225	286,593	363,922	423,062	495,463
Capital in manufactures in the United States.....	\$2,118,208,769	\$2,790,272,606	\$4,525,050,759	\$9,817,434,799	†\$13,972,035,371
Number of manufacturing establishments employing this capital.....	222,148	253,562	355,405	512,254	†533,769
Average number of days per year each member of school population attends school in United States.....	48.7	53.1	59.2	71.3	76.1
Average number of school days per year in North Atlantic.....	132.1	130.3	134.7	144.3	154.1
Average number of school days per year in South Atlantic.....	152.0	159.2	166.6	177.5	180.8
Average number of school days per year in North Central.....	97.4	92.4	99.9	112.1	124.7
Average number of school days per year in South Central.....	133.9	139.8	148.0	155.9	162.2
Average number of school days per year in Western.....	91.6	79.2	88.2	98.3	118.2
Average number of school days per year in Western.....	119.2	129.2	135.0	141.5	168.3

* Estimate. † In 1905.

CHAPTER III

ORGANIZATION AND ADMINISTRATION

THE individual state is the source of power in the organization and administration of public education. The influence of the United States upon education has been effected largely through grants of land made to individual commonwealths, and through the Bureau of Education. These grants have been made both for the benefit of the common school and also for higher education. By the act of March 2, 1862, about thirteen millions of acres of land were granted by the Federal government to several states for the establishment or promotion of higher education and especially of mechanical or agricultural education. The amount of land given for the support of public schools and common schools is far greater than that given for the support of the higher education. For the universities and agricultural and mechanical colleges about ten millions of acres have been given, but for the common schools more than seventy million. A

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the states the common schools of which have been more richly endowed, are Utah, with about six million acres, Montana and California with five million acres each, Idaho and Colorado three million acres each, North and South Dakota have each received more than two million acres, Oregon and Nevada each more than three million acres, Minnesota and Kansas each more than two million acres.

Although the general government has committed the interests of the education of the pupil to each individual state, it has aided each individual state in doing its educational work through these large grants. It has sought to apply a proper doctrine of state rights, and it has also endeavored to increase and to make more efficient the rights which each state exercises.

The influence of the general government is also exercised through the Bureau of Education. This was created as a department in 1867, and became a part of the Interior Department two years later. The establishment of the Bureau of Education was the direct result of public discussion. In this discussion three plans by which the general government might aid education were suggested. It was

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suggested that the government might establish a national system of education. It was also suggested that Congress might oblige each state to maintain a public school system. It was further intimated that Congress might, through a department of the national government, and through grants of the public domain, persuade each state to maintain voluntarily a more efficient system of education.

The first plan was never seriously or largely entertained. It was opposed to the educational law that efficiency of public education becomes the greater as the responsibility for carrying it forward is more directly and immediately felt. The second plan was opposed to the constitutional method of government of the United States. The third plan was in respect to the public grants, the continuation of the method long pursued by the government. The Department of Education represented a new and distinctive force. This force represented greater uniformity and accuracy in gathering the statistics of education and finer wisdom in their interpretation. It also was designed to give an opportunity for the comparison of different school systems, not

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only of the different states, but of different nations. It also included means of securing and of giving information regarding every condition of the systems of education in all countries. Matters pedagogical, financial, administrative were included. In a word, the Bureau of Education was designed to become a great clearing-house for educational facts.

In the forty years which have passed since the organization of the bureau, these purposes and methods which were early entertained have constantly obtained. The Bureau of Education has proved to be a most efficient force in the improvement and enrichment of education in America. The first incumbent was Henry Barnard. Although his tenure of only three years was brief, yet the department was exceedingly happy in his eminent service, as it has been in the last completed term of Dr. W. T. Harris. The department has suffered under insufficient revenue, it has been housed inadequately, it has failed to obtain just recognition from Congress, but through the personal and educational force of Dr. Harris and of his predecessors Eaton and Dawson and of his successor Brown, it has come to be an institution as well as an influence. Its reports and special

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papers represent its chief form of service, and they constitute the most valuable educational publications issued in the United States.

It is, therefore, not the general government, but the state, which has authority in educational concerns. The individual state represents an educational monarchy. The constitutions of the states, written or revised in the last forty years, agree in their insistence upon the worth of education, as did the Ordinance of 1787. Several constitutions of the later period retain clauses of the instruments of the older states. The constitution of Missouri of 1865 is like the Maine constitution of 1820; the California constitution of 1879 follows that of Missouri of 1865; the constitution of Nebraska of 1867 is practically the same as the Ohio constitution of 1851, which was essentially a copy of the preamble of the constitution of 1803; the North Carolina constitution of 1876 follows the Ordinance of 1787. The constitutions of several states — that of Mississippi of 1868, that of South Dakota of 1889, and that of Idaho of 1890 — are copies of the Minnesota constitution of 1858. The laws passed by the various states under these constitutions embody a just and usually

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an efficient method for carrying out the fundamental provisions.

In the administration of the educational system of the different states, five units have emerged: the district, the township, the county, the city, and the commonwealth itself.

The school district is the smallest political unit. It arose because of the conditions of the political life of New England. Early in the last century school districts were made corporations. In Massachusetts, by acts of the years 1817 and 1827, this smallest political unit was given great power. The Massachusetts system spread widely and swiftly. The conditions attending its existence were diverse. In some cases it covered a small territory, in others one several miles square. It might contain one family or many. It possessed advantages of simplicity of political and educational machinery; it allowed the people to take immediate and effective action. It was, however, subject to serious disadvantages. It was provincial; and it prevented the growth of the educational spirit. The State of New York had at one time eleven thousand districts, and the State of Illinois a still larger number. It was expensive in money, it exces-

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sively increased the number of school officers, it was the occasion of injustice in taxation for educational purposes and in the granting of educational privileges. It prevented the formation and growth of a consistent policy in education. It was, therefore, doomed to fail. Before the year 1897, no less than twenty-four states had abolished the district system.

The educational unit standing next to the school district is the township system, and next to it, or coördinate with it, its urban counterpart is found, the city school system. These systems are, in a sense, an enlargement of the school district. The board of education or the school committee represents the legal forces. The political power in both town and city rests upon the voters. The executive board are, in certain cases, chosen by all the voters; in other instances they are appointed. In some cities they are appointed by the mayor, and in others, as in Philadelphia, by the city judges. In New Orleans they are appointed by the state board of education. Upon them rests the whole conduct of the schools.

In order of succession, the county represents the next highest educational political unit. The county has played a far more im-

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portant part in the political organization of the Southern States than of the Northern. Only one New England state has a county superintendent or a county examiner. Excepting Ohio and North Carolina, county superintendents are found in each state of the West and of the South, and Ohio has a board of county examiners. These county officers, superintendent or examiner, are, in the larger number of the states, elected by the people. In some they are appointed by a county court; in a few they are appointed by the governor or other state officer. The county officer is, in general, subject to the immediate authority of the state superintendent of education.

The highest educational unit is the state itself. Every state and territory except Delaware and Alaska has come to establish a separate educational department. This department is represented by an administrative officer called either superintendent or, as in Ohio, commissioner, or, as in Connecticut, secretary. In the majority of the states he is chosen by the people, but in no less than fourteen he represents an appointment by the governor or by the state board of education, or an election by the legislature. The term of office

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varies. In eighteen states it is four years. The tendency is toward its lengthening. The authority and duties of this chief officer greatly vary. He is in general the executive head of the schools of the commonwealth. In certain states, as New York, his authority is great; in other states, as Ohio, it is small. Usually he collects and publishes statistics of the schools and colleges of the commonwealth. He makes a report to the governor, he grants licenses to teachers, he frequently though not invariably prescribes text-books. His authority in certain cases goes so far as to include the appointment of county superintendents, as in Alabama, the appointment of state boards of examiners, as in Ohio, the appointment of county, city, and borough superintendents, as in Pennsylvania, and the appointment of local boards for normal schools, as in New York.

Such powers he frequently exercises alone, but in a great majority of cases, these and similar functions are shared with a state board of education. This board is often composed of the governor, the secretary of state, the attorney-general, the president of the senate, or of similar officers, and of other members appointed by the governor. In New Jersey,

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Mississippi, and Virginia this board appoints county superintendents. In Louisiana it appoints all parish and educational boards. In certain states the school funds come under the control of this body. In Minnesota a high school board has "full discretionary power" to lay down the conditions on which aid shall be given to the high school by the state.

In the administration of public schools there has occurred, in recent years, a vast development of the principles which underlie administration, as well as of the administration itself. It has become clear that school affairs should not be mixed up with partisan controversies: all schools should be managed as schools. The agreement has become general that the distinction between the legislative and the executive functions should be clearly made. It has come to be generally accepted that a small educational board is far more effective than a large one. It is also recognized that a board chosen by the whole city, is more efficient than one chosen according to wards or districts. The belief also has become common that the administration of the school should be divided into two independent departments: one concerned only with instruc-

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tion and the other with the business interests. The business manager is to attend to all material concerns; the superintendent — as he is usually designated — to all matters that relate directly to education. In the last twenty years this separation of functions, known as the Cleveland system, has obtained general recognition as the most effective in securing the highest purposes of education.

The tendency, therefore, of the public school system in the last two score of years is a tendency toward centralization. The tendency centres in the superintendent or supervisor. The character of the qualities demanded by the work of an educational administrator, as well as the nature of the work itself, is manifold. The head of the schools of a town or city is both an administrator and an executive. In the last two score of years, his importance in educational affairs has vastly increased. He is the head of the system; he is also its heart, fingers, and feet. The choice of the teachers is usually intrusted to his wisdom. Weakness or foolishness on his part results in general inefficiency. Not only for the choice of teachers but also for the adjustment of teachers to their work, is he to be gifted with wisdom. One

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fitted for the primary work may not be fitted for work in the grammar grades. The selection of text-books, too, is a concern of importance almost equal to the choice of teachers. Text-books have greatly improved in the last thirty years, but their improvement in quality is hardly less significant than the increase in their number. Yet the choice of the teacher and the selection of the text-book are only preparatory to the course of study of which the text-book is the exponent and the teacher the vitalizing force. The course of study is in general an inheritance, but every wise superintendent seeks to adjust the course of study to the needs of the present. His school is to be fitted to life, in order that its graduates may be fitted not only to live but also for *life*. The questions involved in the making of a course of study are manifold and of great seriousness. Questions as to content and method appear at once. What studies should be studies of the child who is to leave school at the age of twelve or fifteen; what of the child who is ultimately to enter college? The question of methods, too, constantly emerges. What are the best methods of teaching reading, geography, grammar, history, arithmetic? But

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beyond or before the teacher, the text-book, the curriculum, lies the matter of the construction of schoolhouses, their architecture, their playgrounds, their warming and ventilation. If the superintendent is to be concerned with intellectual things, he must also have an interest in the materialities which help to constitute a large part of the worth of the school system. He also bears personal and official relations to the teachers of the schools. He is to be their teacher and their counselor. The dull he is to inspire. Wisdom he is to be to those who are without tact. Vigor he is to arouse in the indolent. He is, further, to the people the embodiment of the public schools. Most complaints first reach him as the most conspicuous personality in the school system.

The superintendent is commonly appointed by a board which is elected by the voters of the town or the city. It is at this precise point that we touch a weak spot in our educational system. This board is not usually composed of men especially fitted to deal with educational questions. They are selected on other than educational grounds. They, in turn, not infrequently feel justified in using their office, not in serving the people, but in serving par-

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tisan ends. It is indeed a blessed fortune when a good superintendent is supported by a school board that is so wise as to know that it knows little, and therefore commits all educational questions to him. For superintendents know painfully of the endeavors of school boards to run the schools as they would run a factory ; cheapest wages for service, lack of discrimination in the choice of teachers, and a willingness to imperil children's lives to save a charge for plumbing. This weakness in our educational system, shown in the failure to adjust means and ends, is one of those large conditions with which the superintendent is to deal properly. The condition calls for a policy — aggressive, yet not too aggressive; for diplomacy without duplicity; for the proper satisfying of individual prejudices; and, above all, for a method that shall insure the promotion of the vital interests of the school.

When one attempts to describe the sort of man whom cities and large towns desire, in these recent years, to be the superintendent of schools, one discovers that the superintendent is to embody all that is excellent and highest. He is to be a man "of light and leading." He is to be a man of character, a gentleman of

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good manners, and a scholar. To the pupils he represents those qualities the securing of which is the end of the school. To the teachers he should embody those worthiest elements which they constantly hold up in their own personalities to their classes. If he must have the defects of his excellences, he is indeed to possess the excellences of his defects. He is to have an educational policy, but he is to hold it with a determination free from stubbornness. He is to have a financial policy; for he influences the amount of money to be given to the different grades of schools and to the different teachers, but he is to be economical without parsimony, and liberal without lavishness. He is to be a scholar, or, what is more important, he is to know scholarship and to know scholars. He is also to know and to be impressed with the fact that in the public schools scholarship is a method or a means to the primary end of securing character and social education. He is to be, as I have said, an administrator and an executive, but he does not require a long experience to learn that social and personal relations are of the highest worth in securing worthiest results in educational service. He is to find his work in the school, but he

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is to remember that he is a citizen, and that he has fellow-citizens; and that with them he is to be on terms of good-fellowship. He may think himself set apart to a work of peculiar sacredness, but he is often called to recognize that he himself and the whole system of which he is the head, rest upon the great foundation of the welfare of the whole people. He may think of his work as entirely intellectual and spiritual, but on numerous occasions he is required to remember that the support of his work is found in the public taxes. A part of his work is done at his own desk in solitary reflection on the conditions intrusted to his keeping, but he also often holds conferences with his associates and is frequently summoned to give counsel, and to offer guidance, in emergencies of particular peril. He will be asked to point out to the citizens, in either writing or speaking, the duties which they owe to the children of their city. He is to be aggressive without being radical; he is to recognize the good of the past, yet not to be chained to the past; he is to be a man of large heart, but he is not to let his sympathies control his judgment. He is to be able to say or do hard things when they ought to be said or done, but he is so to do and to say

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as to leave in the one whom he may criticise or oppose a friend and a supporter. He is so to deal with the faults of the pupils as to cause them to correct them, with the foibles of the teachers as to cause them to remove them, and with the limitations of the school boards as to inspire them to largeness of vision and vitality of service.

Already our scanty educational annals offer examples of superintendents who have possessed such qualities and rendered such service. Boston, Worcester, Springfield, Brooklyn, Philadelphia, Cleveland, Chicago, Minneapolis, St. Paul, St. Louis, Kansas City, Denver, and many other towns bear testimony to the great work of men whose names may be unknown to the general public, but whose characters have been notable examples to the students and to the teachers of these towns, and whose labors have resulted in the betterment of tens of thousands of lives. Dr. W. T. Harris, in the dozen years between 1868 and 1880, guided, formed, and inspired the schools of St. Louis. The results of the service of Dr. Harris will abide so long as the great city stands or the great river flows. In several of these cities the heads of the public schools are now rendering a service

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to the people far greater than that which any other citizen is rendering. But this conspicuous and most important service is not confined to our large cities. In smaller towns, throughout the length and breadth of the country, are to be found superintendents who have given themselves in the largest ways to the betterment of the people through the public school system.

The movement toward centralization, which finds its centre in the public school superintendent, has also become a part of university administration. The college has, in this period, easily passed into the university. Yale College became Yale University in the year 1887, and the College of New Jersey, known as Princeton College, became Princeton University in 1896. These changes are significant. They are significant of the comprehensive purpose of the academic order. They are also significant of the desire of American institutions to associate themselves more fully with similar learned societies of the world. They are also significant of the willingness of the higher institutions to give to the professional schools an importance akin to that attached to the college of liberal learning. The tendency

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has become strong for professional schools to associate themselves with universities. Many medical schools began as proprietary schools. Legislation has caused most of them either to disband or to put themselves under university supervision. In the year 1899 the number of theological, law, and medical schools under university supervision were respectively 46, 70, and 74. The number of independent schools was in theology 119, in law, 16, and in medicine 82. The university associating itself directly with the professional schools has come to regard these schools as its legitimate children or associates.

The administration of technical schools manifests a similar tendency, although the tendency toward unification is somewhat less strong. At the present time, what is regarded as the best technical school, the Massachusetts Institute of Technology, is independent, although long and serious endeavor for its alliance with Harvard University was made in the years 1904-5 as well as in the last years of the seventh decade of the century. The arguments in behalf of the identification of technical schools with universities, consists of such considerations as the difficulty of find-

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ing proper governors and trustees, and the value of the companionship of students and of teachers engaged in different forms of intellectual service. It is also to be said that the university is the best condition and agent for the fostering and perpetuation of the increasing stores of learning. But the testimony against such unification is strong. The method pursued in Germany is in favor of independence. It is the belief of many German scholars that no economies would be effected by the alliance of scientific schools with universities. In the year 1904, the Union of German Engineers expressed a willingness that their members should be subjected to the same judgment in respect to general culture as the members of the other professions. They also indicated their belief that mathematics and the natural sciences were as efficient means of culture as linguistic studies.¹ A late president of the Massachusetts Institute of Technology, Francis A. Walker, felt confident that the association of technical-school students with college students would be far better for the college than for the technical students. He said:—

¹ *Science*, January 20, 1905.

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That the students of technology throughout our country do, as a body, apply themselves to their tasks with wonderful energy and enthusiasm is a fact so familiar that it hardly needs to be adverted to here. The accession of such students to a great university would doubtless do much good to the university; but that the technical school would be better for the association may be questioned, in view of the multitude of distractions which beset ordinary student life and the frivolity of many of the interests which are there deemed of prime importance. On their part, young men do not greatly care to go to schools where they are not respected equally with the best; where all the praise and all the prizes go to others; where the stained fingers and rough clothes of the laboratory mark them as belonging to a class less distinguished than students of classics or philosophy.¹

The growth in appreciation by the people of the worth of education tends to increase the regard in which educational administration is held. The extension of knowledge has heightened the importance of the educational forces. As the community has come to be convinced that education is the most comprehensive means for the preservation and enrichment of itself, it has come also to appre-

¹ Francis A. Walker, *Discussions in Education*, p. 50.

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ciate the value of wisdom and efficiency in executive management.

The growth of the system of administration is a growth in the application of the principle of institutional and of personal liberty. The individual neighborhood or state, or any part of it, has under law adopted that system which is best fitted to fill its own needs and to promote in the highest degree its own interests. The laws themselves have sought to interpret the needs of the commonwealth. The centralized system has obtained in New York, and the individualistic in Ohio. The principle of liberty has come to prevail in the last generation in the field of educational administration, as it had succeeded in obtaining supremacy in the previous century in the field of political and civil government.

CHAPTER IV

HISTORY OF EDUCATIONAL THOUGHT

THE history of educational thought in this period includes, first, the consideration of the changes in the conception and definition of education; second, the value of the materials for an education and the mutual relations of these diverse materials; third, the examination of the changes in the interpretation of the subject of education, the child himself; and fourth, the worth of truth itself as a means of education.

In this time, many ideals concerning education formerly regarded as unique or exceptional have become common property. These principles have passed into the condition of the common law of education. "The supremacy of self-activity," as Professor Dewey remarks, "the symmetrical development of all the powers, the priority of character to information, the necessity of putting the real before the symbol, the concrete before the abstract, the necessity of following the order of

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nature and not the order of human convention — all these ideas, at the outset so revolutionary, have filtered into the pedagogic consciousness and become the commonplace of pedagogic writing and of the gatherings where teachers meet for inspiration and admonition.”¹ But also in this same time, many changes in the conception of the ultimate nature and character of education have occurred. Perhaps the chief general change may be intimated in the remark that the movement in the interpretation of education has been from the statical definition of education to the dynamical. Education has ceased to represent a status and has come to stand for a process or movement. The biological, psychological, and sociological interpretation has come to represent constant and insistent elements.

In this great historic movement, education has not received, not even in Plato, a wiser consideration than was given it by John Henry Newman. In a lecture delivered some years before the period under special examination, in 1852, Newman said:—

¹ John Dewey, *The Educational Situation*, p. 9, No. 111 of the “Contributions to Education” published by the University of Chicago Press.

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If then a practical end must be assigned to a university course, I say it is that of training good members of society. Its art is the art of social life, and its end is fitness for the world. It neither confines its views to particular professions on the one hand, nor creates heroes or inspires genius on the other. Works . . . of genius fall under no art; heroic minds come under no rule; a university is not a birthplace of poets or immortal authors, of founders of schools, leaders of colonies, or conquerors of nations. It does not promise a generation of Aristotles or Newtons, of Napoleons or Washingtons, of Raphaels or Shakespeares, though such miracles of nature it has before now contained within its precincts. Nor is it content on the other hand with forming the critic or the experimentalist, the economist or the engineer, though such too it includes within its scope. But a university training is the great ordinary means to a great but ordinary end; it aims at raising the intellectual tone of society, at cultivating the public mind, at purifying the national taste, at supplying true principles to popular enthusiasm and fixed aims to popular aspiration, at giving enlargement and sobriety to the ideas of the age, at facilitating the exercise of political power and refining the intercourse of private life. . . . It shows him how to accommodate himself to others; how to throw himself into their state of mind, how bring before them his own, how to influence th

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how to come to an understanding with them, how to bear with them. He is at home in any society, he has common ground with every class; he knows when to speak and when to be silent; he is able to converse, he is able to listen; he can ask a question pertinently, and gain a lesson seasonably, when he has nothing to impart himself; he is ever ready, yet never in the way; he is a pleasant companion, and a comrade you can depend upon; he knows when to be serious and when to trifle . . . with gracefulness and to be serious with effect. He has the repose of mind which lives in itself, while it lives in the world, and which has resources for its happiness at home when it cannot go abroad. He has a gift which serves him in public, and supports him in retirement, without which good fortune is but vulgar, and with which failure and disappointment have a charm.¹

The affluence and discrimination of the style of this unique passage aid in the impressiveness of the conception itself. The interpretation thus made, although not generally known, has come because of its truthfulness to be embodied in the educational thinking of the last decades of the nineteenth, and the first years of the twentieth, century.

¹ John Henry Newman, *The Idea of a University*, pp. 177, 178.

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In the decade in which Newman spoke, by a philosopher as unlike Newman as it is possible to conceive, was put forth a tractate called "Education." Its author was Herbert Spencer. The little book has had a great influence; perhaps none greater. It was published at the time when educational thought was beginning to come to itself, but had not yet arrived. Educational thought was betwixt two worlds, the "one dead and the other waiting to be born." The book is concerned with that education which is of most worth. It is based upon a desire to promote those activities which constitute human life. Those activities in the order of their importance, Mr. Spencer classified as follows:—

1. Those activities which directly minister to self-preservation;
2. Those activities which, by securing the necessities of life, indirectly minister to self-preservation;
3. Those activities which have for their end the rearing and discipline of offspring;
4. Those activities which are involved in the maintenance of proper social and political relations;
5. Those miscellaneous activities which make up the leisure part of life, devoted to the gratification of the tastes and feelings.¹

¹ Herbert Spencer, *Education*, p. 16.

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These two distinct interpretations of education have entered into the history of educational thought. The beautiful interpretation of Newman's is the best definition ever given of the aim of the higher education, and Spencer's definition that education has for its purpose complete living has attained an almost universal application. Education has, in fact, become recognized as a means of both making a living and of making life worth living. It has found recognition as a method of training the intellect to think, to reason, to discriminate, to judge, of training the will unto high purposes and unto the adoption of wise methods offered to it by the intellect, of training conscience with a will to choose the right and to refuse the wrong, of training the æsthetic faculty into an appreciation of the beautiful. Under these terms, Spencer's definition has come to be regarded as more worthy and more universal than probably even its maker recognized.

These interpretations of education are well united by John Stuart Mill in his great rectorial address given at St. Andrews in the year 1867. In this historic paper, which is a brief for the promotion of education, Mill says:—

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Whatever helps to shape the human being — to make the individual what he is, or hinder his being what he is not, is part of his education. . . . Education in the narrower sense [is the] culture which each generation purposely gives to those who are to be its successors, in order to qualify them for at least keeping up, and if possible for raising, the level of improvement which has been attained. . . . Universities are not intended to teach the knowledge required to fit men for some special mode of gaining their livelihood. Their object is not to make skilful lawyers, or physicians, or engineers, but capable and cultivated human beings. . . . What professional men should carry away with them from a university is not professional knowledge, but that which should direct the use of their professional knowledge, and bring the light of general culture to illuminate the technicalities of a special pursuit. Men may be competent lawyers without general education, but it depends on general education to make them philosophic lawyers — who demand, and are capable of apprehending, principles, instead of merely cramming their memory with details. And so of all other useful pursuits, mechanical included. Education makes a man a more intelligent shoemaker, if that be his occupation, but not by teaching him how to make shoes; it does so by the mental exercise it gives, and the habits it impresses. . . . It is a very imperfect education which

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trains the intelligence only, but not the will. No one can dispense with an education directed expressly to the moral as well as the intellectual part of his being. . . . The moral or religious influence which a university can exercise, consists less in any express teaching, than in the pervading tone of the place. Whatever it teaches, it should teach as penetrated by a sense of duty; it should present all knowledge as chiefly a means of worthiness in life, given for the double purpose of making each of us practically useful to our fellow-creatures, and of elevating the character of the species itself — exalting and dignifying our nature. . . . A university exists for the purpose of laying open to each succeeding generation, as far as the conditions of the case admit, the accumulated treasure of the thoughts of mankind.¹

Education has, therefore, in this period, come to represent what Matthew Arnold has intimated is the true aim of instruction, “to develop the powers of our mind and to give us access to vital knowledge.”²

The biological relationships of education have, in this period, come into special significance.

¹ John Stuart Mill in *Rectorial Addresses, University of St. Andrews*, pp. 20, 21, 63, 64.

² Matthew Arnold, *Higher Schools and Universities in Germany*, p. 173.

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Of the biological conception of education at least three elements are especially significant: first, the increase of the size of the brain, both absolutely and proportionately to the size of the body in the ascending scale of mammals; second, the prolongation of the time of infancy in comparison with that of the lower mammals; and, third, the brain as the organ of the mind.¹ In the application of these three pregnant facts, the biological conception of education reaches several conclusions. Perhaps the most important is that the real and the practical is made the basis of the speculative and the ideal. The test is that a method or an end shall favor practical and efficient education. Under this same conception, the utility of education is emphasized. Does education give power and promote efficiency? A third truth which biology affirms, is that in education self-expression, responsiveness are of primary worth. Passivity has small value. Intellectual activity, good in itself, is also good for largest results. Power is thus created, development secured. The place of memory is minimized, the function of thinking promoted.²

¹ H. H. Horne, *The Philosophy of Education*, p. 19.

² *Ibid.*, pp. 53, 56.

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The psychological relations of education are of an earlier origin than the biological, and the psychological conclusions are more generally accepted. Men have believed that through the experiments of the laboratory made upon themselves, they are able to learn somewhat more accurately and comprehensively the real nature of education and the methods and processes necessary for its promotion. As President G. Stanley Hall has said:—

Experiments on the senses, motion, time of psychic actions, fatigue,¹ pain, rhythm, etc., now take most of the vital problems of perception, association, attention, and will, into the laboratory; they quadruple the power of introspection while obviating all its dangers; they shed new light into many dark corners; and they have already reconstructed many old doctrines. . . . In the modern laboratory, conditions, whether of a bit of nerve fibre or cell or of a normal human being, are varied indefinitely, and really enlarge human experience. Men sleep on balances with apparatus that records the slightest change of pulse, respiration, circulation, heat; they test themselves with mild doses of narcotics, tonics, and other nervines; they multiply or reduce air-pressures over the entire dermal surface; they select a square inch of skin, and with every known test, educate it for months; they

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fatigue definite muscle-groups; they measure the exact time and force of memory and will; they register diurnal and even monthly periodicities; they explore the hypnotic state; they apply the various forms of electricity, light, heat, sound, with chemicals for taste and smell.¹

The processes thus adopted and the results secured are applied to education. They serve to illustrate the demands and limitations of the human mind as the object of education. They also illustrate the worth of truth in promoting education. The experiments thus made hold out means of securing light for the most difficult and important problems of education.

Education is also to be defined in its sociological reference. Professor Hanus has said that the—

education demanded by a democratic society to-day is an education that prepares a youth to overcome the inevitable difficulties that stand in the way of his material and spiritual advancement; an education that, from the beginning, promotes his normal physical development through the most salutary environment and appropriate physical training; that opens his mind and lets the world in

¹ *The Forum*, vol. xvii, p. 713.

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through every natural power of observation and assimilation; that cultivates hand power as well as head power; that inculcates the appreciation of beauty in nature and in art, and insists on the performance of duty to self and to others; an education that in youth and early manhood, while continuing the work already done, enables the youth to discover his own powers and limitations, and that impels him through . . . productive effort to look forward to a life of habitual achievement with his head or his hands, or both; that enables him to analyze for himself the intellectual, economic, and political problems of his time, and that gives the insight, the interest, and the power to deal with them as successfully as possible for his own advancement and for social service; and, finally, that causes him to realize that the only way to win and to retain the prizes of life, namely, wealth, culture, leisure, honor, is an ever-increasing usefulness, and thus makes him feel that a life without growth and without service is not worth living. . . . The only real preparation for life's duties, opportunities, and privileges is *participation* in them, so far as they can be rendered intelligible, interesting, and accessible to children and youth of school age; and hence the first duty of all education is to provide this participation as fully and as freely as possible. From the beginning, such an education cannot be limited to the school arts — reading, writing, ciphering. It must

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acquaint the pupil with his material and social environment, in order that every avenue to knowledge may be opened to him, and every incipient power receive appropriate cultivation.¹

The reason of the development of the biological, psychological, and sociological aspects of education lies in the development of these sciences themselves. In the last two score years, the science of biology has acquired a most important part in the conception of growth, and in the development of the individual. Problems of biology have come to be interpreted as problems of education, and problems of education have come to be stated in terms of biology. Psychology has also witnessed a similar progress. The first psychological laboratories of Johns Hopkins, of Yale, of Harvard, and of Cornell were at once cause and result of the psychological interpretation of education.

The rise of the sociological definition or interpretation of education has been contemporaneous with the rise of sociology itself. As men have come to appreciate in intellect and in feeling the intimacy of the relationships which unite the members of society, they have

¹ Paul H. Hanus, *A Modern School*, pp. 3, 4, 5.

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also come to understand and to feel the importance of education as a preparation for life in the brotherhood of the race.

These developments and changes, however, have been in no small degree matters of emphasis. The essential definition of education has remained substantially unchanged. Bishop Butler makes an interpretation of education which is substantially biological. "Human creatures, from the constitution of their nature, and the circumstances in which they are placed, cannot but acquire habits during their childhood, by the impressions which are given them and their customary actions; and long before they arrive at mature age these habits form a general settled character."

Bishop Butler's interpretation is based upon the definition of education as essentially a life-process. Likewise Sir William Hamilton and his fellow countryman, Dugald Stewart, constantly write of education as a psychological process. "The paramount end of liberal study is the development of the student's mind, and the knowledge is principally useful as a means of determining the faculties to that exercise through which this development is accomplished. Self-activity is educational

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— that is, accomplishes its purposes — only by affording objects and supplying incitements to this spontaneous exertion. Strictly speaking, every man must educate himself.” Dugald Stewart also affirms, “To watch over the associations which they form in infancy; to give them early habits of mental activity; to rouse their curiosity, and direct it to proper objects; to exercise their ingenuity and invention; to cultivate in their minds a turn of speculation, and, at the same time, preserve their attention alive to the objects around them; to awaken their sensibilities to the beauties of nature, and to inspire them with a relish for the intellectual enjoyments — these form but a part of the business of education.” And John Milton also, in his great definition, has simply emphasized the sociological aspect. “I call a complete and generous education that which fits a man to perform justly, skilfully, and magnanimously all the offices, both private and public, of peace and war . . . inflamed with a study of learning, and the admiration of virtue; stirred up with high hopes of living to be brave men, and worthy patriots, dear to God, and famous to all ages.”

The great change, however, lies in the de-

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velopment and elaboration of the biological interpretation which Bishop Butler gives, of the psychological which Hamilton, Stewart, and many others offer, and of the sociological embodied in Milton's noble phrases. Modern education has emphatically brought out the truth of each of these interpretations and applied them to the business of education itself.

Perhaps the best interpretation of what education has come to stand for is embodied in a definition given by one of the great but unrecognized thinkers of the last decades, Thomas Hill, president of Harvard University from 1862 to 1868. Dr. Hill says:—

A thorough and complete education ought to preserve and increase the pupil's bodily health and strength; give him command of his own muscular and mental powers; increase his quickness in perceiving through his five senses, and quicken his mental perception; form in him the habit of prompt and accurate judgment; lead to delicacy and depth in every right feeling; and make him inflexible in his conscientious and steadfast devotion to all his duties. In other words an integral education must include at least these four branches: — gymnastics, or care of the body; noetics, or training of the mind; æsthetics, or cultivation of the tastes; and

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ethics, which shall include religion as well as duty. And in every part of each branch of education, there will be a double end in view, namely, the increase of knowledge, and the increase of skill. Each study may be made the object of thought, or the object of action; in the one case it is pursued as a science; in the other case as an art.¹

In this time, too, the materials of education have vastly increased. Enlargement of the course of study has been constant and great. Science has come to occupy a significant place. It most directly promotes those activities which are essential to human welfare. It trains those forces which immediately minister to this welfare. It disciplines those powers which have for their end the training and rearing of children. It educates those elements, furthermore, which are involved in the maintenance of proper social order and political relations, and it, moreover, makes more useful those sentiments and appreciations which have to do with the gratification of the tastes and of the feelings. For as Spencer says:—

Paraphrasing an Eastern fable, we may say that in the family of knowledge, science is the household

¹ Thomas Hill, *The True Order of Studies*, pp. 7, 8.

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drudge, who, in obscurity, hides unrecognized perfections. To her has been committed all the work; by her skill, intelligence, and devotion have all the conveniences and gratifications been obtained; and while ceaselessly occupied ministering to the rest, she has been kept in the background, that her haughty sisters might flaunt their fripperies in the eyes of the world. The parallel holds yet further. For we are fast coming to the *dénouement*, when the position will be changed; and while these haughty sisters sink into merited neglect, science, proclaimed as highest alike in worth and beauty, will reign supreme.¹

The remark is altogether too haughty, but it contains much of truth.

The study, therefore, of nature has worthily come to occupy a large place. But with the advancement of scientific studies, literary disciplines have also enlarged and their scope deepened. It has been found that there need be no divorce between the study of science and the study of the humanities. As Matthew Arnold says:—

The ideal of a general, liberal training is to carry us to a knowledge of ourselves and the world. We are called to this knowledge by special aptitudes

¹ Herbert Spencer, *Education*, p. 82.

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which are born with us; the grand thing in teaching is to have faith that some aptitudes of this kind every one has. This one's special aptitudes are for knowing men, — the study of the humanities; that one's special aptitudes are for knowing the world — the study of nature. The circle of knowledge comprehends both, and we should all have some notion, at any rate, of the whole circle of knowledge. The rejection of the humanities by the realists, the rejection of the study of nature by the humanists, are alike ignorance. He whose aptitudes carry him to the study of nature should have some notion of the humanities; he whose aptitudes carry him to the humanities should have some notion of the phenomena and laws of nature. Evidently, therefore, the beginnings of a liberal culture should be the same for both. The mother-tongue, the elements of Latin and of the chief modern languages, the elements of history, of arithmetic and geometry, of geography, and of the knowledge of nature, should be the studies of the lower classes in all secondary schools, and should be the same for all boys at this stage.¹

All knowledge has come to be regarded as a proper field of investigation and the proper tool for instruction. Manual training, drawing, commercial studies have found a place. Sub-

¹ Matthew Arnold, *Higher Schools and Universities in Germany*, pp. 175, 176.

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jects which were formerly thought of as unworthy, have secured recognition as worthy instruments for instruction and discipline.

The introduction of new subjects represents the constant enlargement of human interests. History has come to hold an important place in American education of all grades, because in no small degree in the last forty years America has become a world-power. The immigration of many foreigners has helped to make the history of the world national to the American people. The advent, also, of a foreign population has served to make the teaching of American history necessary for the incorporation of these peoples into the traditions and principles of American life. The great anti-slavery struggle and the Civil War helped to make history vital to the thoughts of men.

In this period education has come to be regarded as a process which should be made pleasant to the child. The doctrine of interest has arrived and has prevailed. The doctrine of hardship has passed away. The teachings of Herbart have become common property and of universal application. Education is less interpreted as a duty to which the stu-

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dent is driven than as an opportunity which he should be and is happy to embrace. Effort has come to be depreciated. It is now recognized that learning without interest promotes dullness, stupidity, listlessness. Interest in education bears to education that relation which a draught bears to a flame: it gives force, brilliancy, progress, efficiency. It is recognized that interest has close kinship with the sense of curiosity and with the sense of causality. Interest promotes thinking, and thinking has found recognition as the most important part of education.

In the last two-score years also has occurred a vast appreciation of the value of the study of the child himself as the subject of education. It is now seen, what should never have been obscure, that the subject of education has close relationship to the purpose of all education. The first formal examination of the content of children's minds was made in Berlin in the year 1869. Eleven years later, in 1880, G. Stanley Hall made a comprehensive study of the minds of many children of Boston soon after they were introduced into the public school. "The tactful and experienced questioners were convinced that fourteen per cent

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of these six-year old children had never seen the stars and had no idea about them; that thirty-five per cent had never been into the country; that twenty per cent did not know that milk came from cows; fifty-five per cent did not know that wooden things came from trees; that from thirteen to fifteen per cent did not know the colors green, blue, and yellow by name; that forty-seven per cent had never seen a pig; sixty per cent had never seen a robin; from thirteen to eighteen per cent did not know where their cheek, forehead, or throat was, and fewer yet knew elbow, wrist, ribs, etc. More than three fourths of all the children had never seen to know them any of the common cereals, trees, or vegetables growing.”¹ The examination of the children’s minds bore a close relation to the question of the observation of the child himself and to the question of the character of the mind of the child. In the year 1880 in Brooklyn was organized a private school in which special examination was made of all students in attendance. The examination was a mental and ethical diagnosis.

The fact is that education has so far ad-

¹ *The Forum*, vol. xvi, p. 437.

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vanced as to recognize that the child is the most important element of the four elements: truth, the teacher, the environment, and the child himself. What can the child attain unto? What are the temptations of life which are most liable to damage him? What are the forces necessary for promoting his growth? What contribution should he make to human betterment? These and similar questions are best answered from the study of the child himself. As has been said, "The soul and body of the young child is freighted with potencies and reverberations from a past we know not how remote, and was, for Plato, of all things in the world, most worthy of love, reverence and service."¹ Such a study is of all studies the most difficult. For as one ascends in the scale of life the more complex become life's functions and the more perplexing its problems. This study belongs not to books about the child but to the child himself. It is as direct a study as that which the naturalist makes of his fish or his flower.

The study of the child has largely taken on four forms. The first concerns the human embryo, the second includes infancy up to the

¹ *The Forum*, vol. xvii, p. 715.

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age of three or four years, the third has reference to the first years of school life, and the fourth and last deals with the adolescent period, beginning at twelve or thirteen and continuing for a decade. These studies have been conducted both by private observers and in psychological laboratories. Parents, instructors, and teachers have united in securing great results. But be it said that the effects of this movement in the study of the child have so far not been great. Educators are conservative. Educational movements do not rapidly progress. Educational changes are not swiftly engrafted into the curriculum. But the studies of the child have had at least some effect. These studies have given inspiration to the best educational forces. They have influenced the methods of instructors, as well as the content of instruction itself. They have, above all, served to impress the individual teacher with the delicacy and the significance of the child, and also added impressiveness to the worth of his work.

Another element in the history of educational thought of the last forty years, has reference to the spirit of scholarship. This spirit has vastly increased. This spirit has in this

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time taken on the name of research. In the year 1875 the word "research" became of special significance in the volume published in England, "Endowment of Research." The word represents a great phrase of Bacon's "Advancement of Knowledge." "Constructive Scholarship" is also a just term for the interpretation. This spirit, always existent, has greatly enlarged and strengthened. Formerly the relation between the teacher and the taught was the only significant relation in the school and college, as Mark Pattison, in his *Memoirs*, and many others, have suggested. This relation is still of primary significance, but it is not comprehensive. The relation of the teacher to the truth, the relation of the student to truth, and the truth itself as a tool of the teacher, have taken on new and happier meanings. This spirit has come to affect teachers of every order. Its influence has been mighty and beneficent.

It emancipates the mind from error and superstition, makes us no longer content with second-hand knowledge, and transfigures work so that men come to love nothing so well as difficulties to be overcome. By varying and controlling conditions with lens, electrode, test-tube, and psychometer,

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It opens new fields as vast as the entire world presented to natural sense, in which the adult is, as it were, again born with wonder and curiosity as fresh as in childhood. It gets the mind into independent action, so that men become authorities and not echoes. Just as when the method of object lessons was added to the old memory cram, and, later, the method of manual training brought in eye and motor-minded children who were thought dull before, so research has shown great power to discover as well as develop talent, and makes tolerable successes of not a few otherwise very poor students. An eminent German professor would subordinate even buildings to research, and lately said that nothing would contribute more to the advancement of chemistry than cheap laboratories that could be rebuilt every ten years to meet the new research problems of that magnificent science.¹

The results of investigation become a part of the possession of the race. The spirit of scholarly inquiry, principally touching the higher education, finally and permanently influences the lower. Usually the professional researcher for truth is the college teacher, yet his spirit touches and moves his students, who in turn become teachers in the public schools, as well as in the colleges. The whole class of

¹ *The Forum*, vol. xvii, p. 559.

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professional teachers, therefore, are influenced by the spirit of the investigation of truth. This large result, human and scholastic, of the presence and of the application of the spirit of scholastic inquiry, characterizes the educational thought and interpretation of the last generation.

CHAPTER V

COURSE OF STUDY

THE history of the studies which have constituted the educational course in the last forty years is characterized by enlargement, by consequent variety of subjects, and by enrichment.

In the middle of the seventh decade a pupil entering the public schools of Boston, or any other representative city, found that his work consisted largely in the study of words. This study was carried on for the purpose of both reading and spelling. At the same time a slight beginning was made in the development of the ideas of numbers. Vocal exercises in music and physical exercises consumed not less than thirty minutes each day. These conditions were continued and developed in each following year. When, after passing through six classes in the primary school, the student entered the grammar, he found that for the first year and the following three his work consisted, in addition to reading, writing, spell-

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ing, of arithmetic, geography, declamation, history, natural philosophy, and physiology. Music was both studied and practised. If the student entered the Latin School, his course was largely devoted to Latin, Greek, and Mathematics. Instruction, however, was given in English composition and in French.

Forty years after, a boy or girl who entered the same school, found a course of study of far greater variety and its teaching accompanied with wiser interpretations of the nature of education and of the mind of the student. The attention given to music and drawing had greatly increased. A large place had also been assigned to written and to oral exercises, and, if the attention paid to arithmetic had lessened, the philosophical interpretation of the subject had greatly improved. The course in arithmetic for primary grades has now come to be based upon the fact that number is essentially a relation. The idea of relation is made known to the child through the work with objects, such as apples, books, having qualitative relations. This relation is more easily and more completely made known, however, through work with magnitudes having definite quantitative relations. These facts have suggested

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two kinds of work to be done by the children, counting and measuring, and two kinds of material to be handled by them, qualitative and quantitative objects. For the latter, lengths, surfaces, and solids are the most easily procured and handled. Throughout the three grades, problems in measures are solved concretely. By means of such solutions, the children discover for themselves numerical relations which become, when stated, facts. In each grade the children are encouraged to make original problems.

The grammar schools also, in the period of forty years, manifest a similar enrichment. Both the primary and the grammar schools give more formal heed to the matter of moral training. The elementary purpose of education is well interpreted in saying, "Its purpose is to train the senses and also the intellectual faculties in their natural order of development; to form scientific habits of study, and to acquire such knowledge as will incite to further and more systematic study of the natural sciences." Manual training, too, has been more fully introduced, such as sewing, light tool work, clay modeling, cooking. Drawing has become a study, including such different

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types as the presentation of natural objects, including decoration and construction. Language and grammar have fallen in relative importance, but the interpretation of the subjects involved in their study has become more philosophical. The purpose of both oral teaching and reading, the understanding and assimilating of thoughts, has become clearly recognized. Geography has ceased to be a study merely political, and has come to be a study largely physiographical. History has been introduced into the upper classes of the grammar schools, especially that which concerns America, and has become more largely human. Arithmetic, having lost its large place, has been adjusted to practical needs and to the comprehension and appreciation of all students.

The high schools have shown not only a great increase in number but also as marked an improvement in the better articulation of the subjects taught. To the English high schools of the earlier time have been added mechanic arts and commercial high schools. The Latin School, too, has vastly enriched its curriculum. English studies have taken a place of importance. The number of hours

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devoted to English has become as great as that given to Latin. French and German, also, have become regular studies. History and elementary science are continued from the grades of the grammar school.

The development of the manual training has gone along with the increase in the variety of the subjects of instruction. The mechanic arts high schools have come to include both academic studies and manual training. Carpentry, wood carving, forging, practice in the machine shop, and drawing are pursued at the same time with mathematics, history, English, French, and German.

The enlargement of the course of study of the colleges is no less great than that which has occurred in the field of public and common education. The contrast in the course of study at Yale College of 1866-67 and of 1905-6, in the first two years, is marked. The freshman of the earlier period devoted all his time in the first term to the three fundamental branches of Greek, Latin, and mathematics; in the second term to these three also, together with the history of Rome. The three fundamental disciplines continued to be his chief studies in the third term, and to these he

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added a bit of English language and composition. The sophomore was like the freshman year in these three essential parts, though "rhetoric" was introduced. In the year 1906-7, the freshman was offered eight studies, from which he was required to select five. The eight included the three fundamental disciplines and also French, German, English, chemistry, and history. In Greek, French, and German, several courses were offered to him, among which also he was still allowed to make a selection. To the sophomore was also given a larger liberty. To the field of choice of the freshman year were added physics, geometry, biology, Biblical literature, philosophy, and economics.

But the contrast between the last two years of the course of the earlier period and the last two years of the later is still more significant. In 1866-67 the junior class was obliged to study Latin, Greek, physics, logic, and chemistry. A certain degree of choice was allowed between mathematics, modern languages, and ancient languages. The senior class of the earlier period gave intimation of omniscience in breadth, even if not in depth, of learning. Each member of that class was obliged to include in his course of study — for at least one

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term of the three — philosophy, history, political philosophy, Latin, rhetoric, geology, astronomy or meteorology, chemistry, moral philosophy, theology as seen in Paley's "Natural Theology" and Butler's "Analogy."

The general character of the course is indicated by the remark regarding elective studies: "Those students who are desirous of pursuing the higher branches of mathematics are allowed to choose the differential and integral calculus, during the two terms of the junior year, in place of Greek or Latin studies of those terms. During the third term of the junior year, the members of the class receive, at their option, instruction in the French or German languages, or in select Greek or Latin. Students wishing to pursue a course in Hebrew may obtain gratuitous instruction in that language from the instructor in Hebrew."

The vast enlargement in the field of learning is seen in the fact that in the year 1905-6 Yale offered the following hours of instruction in the great subjects: —

Latin	.	.	.	.	.	.	.	40	hours
Greek	44	"
Classical Archæology	12	"
Sanskrit, Linguistics, Comp. Philology	6	"

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Biblical Literature and Semitic Lan-						
guages						24 hours
French						25 “
Italian						9 “
Spanish						12 “
German						47 “
Scandinavian						7 “
English						12 “
English Literature						47 “
Mathematics						34 “
Physics						7 “
Chemistry						23 “
Geology						34 “
Biology						19 “
Philosophy						32 “
Theory and Practice of Education						4 “
History						45 “
Social Sciences and Law						68 “
Fine Arts						8 “
Music						13 “

A similar contrast is seen at Harvard College; where the following courses and hours of instruction were offered in the year 1867-8:—

	First Term	Second Term
Mathematics	29	28
Greek	30	30
Latin	31	36

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	First Term	Second Term
Philosophy	14	20
Physics	12	10
Elocution	7	7
German	9	20
Spanish	3	3
Ethics	4	4
Chemistry	10	10
Italian	4	3
History	30	14
Natural History	4	5
French	6	9
Anatomy or Math. . . .	2	3
English	4	3
Themes	3	2
Political Economy	5	0
Special Lectures	1	2
Geology	1	0
Botany	0	2
Anatomy	0	2
Rhetoric	0	6
Zoölogy	0	8
	<hr/> 209	<hr/> 207

Forty-one years after, in 1908-09, Harvard College offered the following courses and hours of instruction for each week of the college year. These courses were designed primarily for undergraduates or for both undergraduates and

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graduates. The list is long and impressive:—

Semitic Languages		Economic History	14
and Literature	17	Economics and Ap-	
Indic Philology	4	plied Economics	23
Greek	40	Business Course	5
Latin	33	Sociology	14
English Composition	43	Business (account-	
English Language		ing, etc.)	62
and Literature	30	History of Religions	5
Public Speaking	22	Modern Government	14
German Language		Law and Political	
and Literature	65	Theory	10
Netherlandish	2	International Law	4
Scandinavian	2	Economic Theory and	
Romance Languages		Method	14
and Literatures	98	Philosophy	65
Slavic Languages	13	Social Ethics	9
Comparative Litera-		Education	14
ture	33	The Fine Arts	23
History and Govern-		Architecture	76
ment	9	Landscape Architec-	
American and Orien-		ture	3
tal History	4	Music	24
Mediæval History	10	Mathematics	58
Modern European		Astronomy	13
History	32	Physics	51
American History	8	Chemistry	33

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Engineering	88	Geography	28
Forestry	13	Mineralogy and Pe-	
Botany	32	trography	8
Zoölogy	54	Mining and Metal-	
Geology	20	lurgy	51
Economic Geology	3	Anthropology	10
Meteorology	11	Total,	1355

The vast enlargement of the course of study — more than sixfold, as seen in these arithmetical computations — has arisen from the vastness of the enlargement of the field of knowledge itself. Enlargement of the general domain ultimately, and not infrequently almost immediately, results in the increase of the number of subjects offered to students and also in the more minute study of the subjects themselves. The laboratory of the scientist and the library of the historian are primary forces or conditions in extending the boundaries of knowledge and also, consequently, in increasing the subjects of study. This enlargement has arisen too from the keen appreciation of the need of fitting the students for life. Life itself has become more manifold, more diverse, more complex. Education, therefore, as a preparation for life, has taken on a greater variety.

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The diversity in the interpretation of the nature of education, moreover, has resulted in an increased variety in the course of study itself. It has been held that education is a gathering up and transmitting of the experience of the race. It has also been declared to be, by Matthew Arnold, a knowledge of one's self and of the world. It has been affirmed that education as an aim embodies human service. Education has been interpreted too as preparation for a complete life. Not infrequently it has been said that education represents the development of the individual into a large gentleman. Education has, in this whole period, become in content scientific, in purpose both individualistic and sociological, in method psychological, and in atmosphere personal. The means of education still remains embodied in the words instruction and personality.

This vast increase in the area of knowledge has necessarily resulted in variety in the instruction actually offered to students. This variety has become greater as the curriculum has become more advanced. The capacity of the human mind to receive learning has not increased in any appreciable degree in a gen-

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eration or indeed in any one generation since the beginning. The student, therefore, has found himself at once obliged to select certain studies^r for his pursuit. This obligation has usually carried along with itself an added sense of satisfaction in pursuing studies. Not only has enlargement occurred, but also enrichment. Enlargement represents the logical term of extension; enrichment stands for the logical term of intention ; but enrichment also represents the worthier method and a more proportionate emphasis on the part of the teacher.

All great subjects of study, from the beginning of the pupil's educational career to its close, have in these forty years undergone fundamental changes.

In a generation, what is called English has come to take upon itself two distinct relationships, the historical and the literary. Literature represents one field and writing the other. Literature has ceased largely to be a study of historical and biographical detail of writers, and has become a direct study of literary masterpieces. In this study is involved the historical method of tracing literary origins, as well as the philological of explaining linguistic forms. English literature has come to be stud-

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ied as a great expression of a great people. United in most schools and colleges with such a study is the duty of composition on the part of the student. The increase of such work has been great. The results obtaining, however, by such increase have not been adequate to the enlargement itself. In the important matter of style, it is sadly true that most students exhibit a lamentable lack, and what is more and most important, give small promise of becoming worthy writers. The cause, without doubt, lies in part at least in the lack of attention paid to classical models. The style of great authors has been built up from a knowledge of Latin and of Greek. As the attention paid to these tongues has lessened, the sense of style in students who write at all has depreciated. In this same department of English in most schools and colleges is placed the department of public speaking. Public speaking has been transformed from being a matter of declamation and oration to a matter of debate. The debate is more vital, more apt, and more inspiring to the individual student than the formal oration.

In this period history has become one of the principal disciplines. It has secured a larger place in the college and has secured a place

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of no mean proportion in the lower schools. In respect to its teaching, several fundamental changes have occurred. The attention paid to the study of general history has diminished. The whole field has been divided and subdivided. The purpose of acquainting the students with the facts has remained a primary purpose, but its primacy has somewhat diminished. The interpretation of facts has assumed a chief importance. Henry Adams once said to his class in Harvard College, "I am a professor of history in Harvard College, but I pride myself that I never remember a date." His meaning was that he interpreted facts in relation to each other and not in relation to time. Such interpretation has assumed a larger place. But the teaching of history is also coming to represent the cultivation of a certain mental attitude on the part of the student. This condition stands for the critical spirit, for the sense of appreciation, for the stimulation of the power of observation.

The great change in the teaching of the sciences has relation to the larger place and more complete foundation of the laboratory. The sciences are now seldom taught except in and through the laboratory and by methods for

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which the laboratory stands. In this period chemistry has been subjected to the fewest changes. In physics the changes wrought have been great. These changes relate to purpose and content. The change in purpose has passed over from a knowledge of physical phenomena as a chief end in itself to an emphasis upon intellectual training. The vast increase, too, in the knowledge of physical phenomena has led to emphasis upon elementary courses as a preparation for the pursuit of advanced courses. This change, however, relates to the college rather than to any other part of the educational curriculum. In method, the great change consists in the development of the laboratory. Forty years ago there was hardly a physical laboratory in the whole country worthy of the name. At the present time the laboratory has become the natural method of teaching physics not only in the college, but in the high school. Perhaps a present danger lies in laying too great emphasis upon the laboratory in teaching the elements of the subject. In content, too, a change hardly less great has occurred. In the earlier time, instruction related to description of phenomena, at the present time the chief concern is the development of principles.

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Biology is the last of the great physical sciences to receive adequate presentation. Under the influence largely of Huxley, the study of living things has come to represent one discipline, and not the two of botany and zoology. In the study of botany, the influence of Professor Martin, a pupil of Huxley, of Johns Hopkins University, and also of Louis Agassiz, has been of primary worth. The method of Agassiz of going straight to nature herself was promoted by the charm and vigor of his personality. Through the method of Huxley applied by Martin, as well as through the laboratory ideas of Agassiz, biological research came to be firmly established in American schools and colleges. The student was taught to look for himself. Later Huxley modified his own course of teaching elementary biology. In the earlier conception he began with the simple element, the cells of plants, ascending to those of animals and to the animals themselves, the method representing a study in the order of development. This order he inverted. By his later practice he began with the higher forms and went down to the lower. Whichever method has been adopted, the cell has been made the basis of study. Bi-

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ology has come to be a great discipline in education of every order.

In the historic subjects of Latin and Greek, fundamental changes have occurred, especially in the older language. Greek is no longer required for admission to college. The number of students of the language in the high schools has diminished. Not a few colleges are teaching the elements of the subject, yet it still retains a place in and for certain minds. The tendency of this study has been to lay less emphasis upon grammar and all forms of linguistics and more emphasis upon historical, literary, archæological, and æsthetic relations. In fact, the less attention paid to grammar has, in a certain sense, resulted in a loss of accuracy of scholarship. The same change in respect to method of study has occurred in the Latin language and literature. A wider knowledge of the Roman antiquities has enlarged the field of interest and of illustration.

The modern languages have in this period come to occupy a great place. Either French or German or both has been introduced into most high schools, and, in not a few cities, German has been introduced into the grammar schools. This early tuition allows the

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offering of advanced instruction in the college, which was impossible forty years ago. The teaching of the languages for the purpose of speaking has, on the whole, passed away. In America is little need for speaking. As an intellectual discipline, too, such speaking comes to be recognized as of slight worth, but a knowledge of these languages as opening rich stores of literature has received a vast appreciation. They have secured a worthier place as a means of culture.

Changes as great in the teaching of economics have occurred. The subject has obtained a far less inadequate place. Down to the year 1870 the great work of Adam Smith had failed to receive proper recognition in the United States. The questions which interested the student were constitutional and not economic. In the last forty years, education has passed over from political science to political economy. The protective tariff, the organization of great corporations, the creation of great industries and of vast systems of transportation have brought economics into the foreground of both popular and scholastic thinking. Courses in finance, railroad and labor problems, and banking are given in college, and

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instruction in these subjects is set forth in not a few schools. Economic history, as well as problems of the present day, is considered. Economics, when united with the subject of political science and of sociology, represents the most significant change in the instruction offered, as it stands for the most important movement obtaining among the American people.

In the general field of philosophy, changes also fundamental have emerged. These changes are the greatest in psychology. The problems of psychology have passed from the statical to the dynamical condition. The laboratory has assumed a place in psychology, although not so great as it has in physics. In metaphysics, in ethics, in logic the *a priori* method has become more or less discredited. The experimental method has gained in ascendancy. The critical mood on the part of both the student and teacher has come to prevail.

In the enlargement of the curriculum the last generation has seen the introduction of what is called manual training. Education has, in all its history, taken on diverse phases. The eighteenth century was philosophical in its interpretations and discipline. It had to

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do with the individual. The nineteenth century was sociological, concerned with society, either as a social whole or as an individual group. The manual training method is in part a recognition of the nineteenth-century idea, in fitting its younger members to perform directly life's duties. But in general, also, manual training represents using the mechanical arts as means and methods of intellectual discipline.

The reasons lying behind the movement are expressed by one of its eminent apostles, the late Francis A. Walker. "It will increase the freedom of industrial movement, allowing our youth as they leave school to find for themselves places in the industrial order with more of ease and assurance than at present. . . . So far as the graduates of the reformed grammar and high schools are *not* to become mechanics, they will certainly be no worse off, by reason of this training; but in many ways they will be the better qualified, even in commercial pursuits or in clerical capacities in connection with manufacturing or railroad enterprises, to make themselves useful to their employers from their manual dexterity, the capability of using tools, and the special knowledge ac-

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quired in school. But far more than this will be the advantage derived from the training of the perceptive powers, the formation of the habit of observation, and the development of the executive faculty, — the power, that is, of doing things as distinguished from thinking or talking or writing about them. To these the traditional curriculum of the schools fails to minister in the smallest degree; and the longer mnemonics, analytics, and dialectics are exclusively pursued, the farther is the student carried from the temper and qualities of the mind which achieve success, except in a few closely restricted and already overcrowded professions.¹”

It is strongly urged by President Walker that “the introduction of shop work into the public system of education cannot fail to have a most beneficial influence in promoting a respect for labor and in overcoming the false and pernicious passion of our young people for crowding themselves into overdone and underpaid departments, where they may escape manual exertion at almost any sacrifice.”²

But what is to be regarded as a stronger

¹ *Discussions in Education*, pp. 141, 142.

² *Ibid.*, pp. 144, 145.

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reason is "that the introduction of shop work into the public schools, closely affiliated with exercises in drawing and design, will give a place, where now there is no place at all or only a most uncomfortable one, to those boys who are strong in perception, and correct in the interpretation of phenomena, but who are not good at memorizing or rehearsing the opinions and statements of others, or who, by diffidence, slowness of speech, or awkwardness of mental conformation, are unfitted for mental gymnastics."¹

This most recent and significant introduction into the curriculum, it is assured, stimulates the ethical virtues. It brings the student face to face with nature herself. It is personal; it promotes personal experience. The brain goes into the hand, and the use of the hand enlarges the brain. A more comprehensive type of manhood results.

This introduction, however, is not unaccompanied with peril. The danger has been found to lie in the fact that the training may be simply manual and not cerebral. Work has not been accompanied by thought and thoughtfulness. The work has also been in

¹ *Discussions in Education*, pp. 144, 145 (abridged).

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peril of becoming a play and its mood one of playfulness; but it is to be acknowledged that these perils are of slight foreboding compared with the actual advantages which have accrued.

CHAPTER VI

THE TEACHER AND TEACHING

THE definition of a profession has in these forty years become enlarged. It has come to include editorship, engineering, and teaching, as well as the calling of the minister, of the lawyer, of the physician. A profession in ideal represents service to the community; in method, self-forgetfulness; in force, a sufficient body of coworkers to demand the loyalty of each other; in condition, a devotion of one's powers to the demands of the calling. A profession also exacts certain tests for admission to its rights and privileges. These conditions are found realized in teaching. The teacher is one of a body of workers numbering more than a half million in the United States. The teacher gives himself wholly to his vocation; the teacher serves the community; the teacher forgets his own advantage. The community demands that certain requirements be met on the part of the teacher before he is allowed to practice his art. These forces and condi-

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tions have either wrought more largely in the last decades of the last century or the principles out of which they grew have been made more potent. The ideal of human service has always prevailed in the conception of teaching, but this conception has gained in prevalence and force. The social ideal has touched the profession profoundly. The teacher has always been a worker of self-sacrifice and of self-forgetfulness; and his self-abnegation has strengthened in recent years. The number of teachers has so increased that the resulting condition has become sufficient to call out a deep sense of loyalty to and of enthusiasm for the calling which they represent. The work of the teacher is no longer an avocation. It is not carried along with farming or with ministerial duties. The certification of teachers also has come to assume much importance in recent years. The origins of such development of the profession of teaching are found in the normal school.

The normal school is not a product of the last forty years; but its dominance in American education has occurred in that period. The idea of the normal school was derived from Prussia, although the name itself came

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from France. The name itself is confined largely to France, Great Britain, Italy, Spain, Portugal, Greece, Roumania, and the United States. "Teachers' seminaries" is the more usual word in Germany, Russia, Sweden, Finland, Norway, and Denmark. "Training schools" is used in Austria and the Netherlands; and the term is common in England.

The growth of the number of normal schools in the last two score of years has been greater than the growth in any other form of professional education. Between 1839 and 1850 seven normal schools were founded; in the next decade, twelve; in the decade between 1860 and 1870, fifty-two; and in the five years from 1870 to 1875, sixty-six. From 1875 down to the present time one hundred and thirty-two have been established. Moreover, in addition to this number, two hundred and thirty universities and colleges, four hundred and forty-nine high schools, and two hundred and seventy-two private high schools and academies are offering training courses for teachers.

But the growth in the mere matter of quantitative relationships of normal schools is no more significant than the change in the methods or conditions of teaching. For in the earlier

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time the normal school was largely a model school. It represented training in methods. It was subject to the peril of imitativeness. Slowly and firmly have larger foundations been wrought out. The normal school still uses and exhibits the best methods of teaching, but it is not so inclined to limit its work to the inculcation of methods. It is concerned with principles; it seeks to enlarge and enrich character. It does not forget that personality is the supreme force in both life and service. It tries to quicken professional enthusiasm. It endeavors to enlarge the student's conception of life. Its purpose is to transmute knowledge into wisdom. It desires not to lay a professional harness upon every student, but to give a large power for large service to each. These results it has been able to secure the more adequately by reason of a more just conception of the nature of education and of teaching. The greater maturity, too, of those who enter the normal school has been an aid in securing these conclusions. The professional school for teachers, in common with the other professional schools, has constantly advanced the conditions for admission to its freshman class.

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The normal school has not, however, been influenced by the demands for higher standards to the extent to which the schools of law and medicine have been influenced. The school has been continued as a means for training teachers mainly for primary and grammar school work. The college has retained in its classes those who propose to become teachers in high schools, and it has turned over to the graduate school those who wish to limit their teaching to the college itself. Many undergraduate colleges have established a department or chair of education. In some instances the department of education has been made an integral part of the philosophical department. In other instances it has been somewhat allied with this department, and in still others it has assumed an independent place coördinate with economics or history. In other colleges or universities, moreover, it has become an independent school, coördinate with the other professional schools. The tendency of the philosophical department to pass over into the pedagogical has received illustration in Columbia University and the University of Chicago. Such establishments for and in education, whether of the simpler or more

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elaborate character, have usually been obliged to combat many and severe prejudices. Many college teachers have only contempt for attempts made to train college teachers. These prejudices have arisen from experiences which too often have obliged college professors to conclude that the attempt to train teachers represents superficiality in knowledge, a willingness to make methods serve as a substitute for principle, and mere glibness and facility in speaking for intellectual thoroughness. The college teacher has, as a teacher, erred in just the opposite way. The fact is that teaching has come to represent the weakest place in the administration of the American college. The teaching power of the man occupying the ordinary professorship is far inferior to his scholarship. The teaching power is less adequate to its labors than are the laboratories and the libraries adequate for meeting the demands made upon them.

For what is a good teacher? What is the conception regarding him which has come to prevail? The good teacher embodies many elements. The most important element in the teacher, it has come to be recognized, is sympathy. Sympathy is both intellectual and

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emotional. By intellectual sympathy I mean the appreciation of the advantages through which the student is enriched and of the difficulties under which he labors. The teacher is to put himself inside the student's brain; the teacher is to see out of the student's eyes; the teacher is to hear with the student's ears. Teaching represents a definite relation between the receiving object and the acting agent. If the acting agent fail to see the need and the condition of the receiving object, he cannot but fail to adjust his teaching to the needs of the student. To the explaining of what is already clear, the teacher may give much heed. To the explaining of what is darkly obscure he may give no heed at all. I know a teacher of mathematics who dashes through algebraic and trigonometric formulæ with delightful clearness to himself, but the swiftness of whose flight the ordinary mind is not able to follow. Conclusions which to the teacher are as clear as they are inevitable, are often to the student unseen. In general teachers too highly appreciate the intellectual apprehension of the student. Young teachers in particular are subject to the defect of believing that the perceptions are more clear and the reasoning more

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logical than they are on the part of the student. On the other hand, the teacher is not, of course, to believe that the power of understanding is less than it is. Parents do not usually appreciate the fact that their children are grown up. The peril of the teacher is the opposite of the peril of the parent. The teacher believes that his student is already grown. The teacher is therefore to watch with carefulness the working of the mind of the student, to reason with fullness respecting the quantity of knowledge which the student can grasp and hold, and to infer soundly touching the intellectual processes which the student can follow. If one give the student tasks too easy, the student ceases to be a student. If one give the student tasks too hard, he also ceases to be a student. In one case, he need not work, and therefore he does not work. In the other case he makes no attempt to do the work, for he knows he cannot do the work. The teacher therefore should so know the student's mind that the work shall be hard, harder, hardest, summoning the student to do his best, calling out latent powers, increasing strength; but that the work which the teacher does assign shall not be, even at its hardest, too hard.

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But this sympathy should not be only an intellectual appreciation. It should also be an emotional sympathy. Emotional sympathy may or may not arise from intellectual appreciation. It may certainly be quite independent of the intellectual relationships. Emotional sympathy is the teacher himself feeling with the student's feeling. That power of entering into the student's being, of liking what he likes, of hating what he hates, of exulting over the things over which he exults, of despising what he despises, and of feeling as he feels, that is the power of emotional sympathy. Great teachers there are who lack it. Teachers there are who possess it and yet are not great teachers. Yet to the greatest teacher it belongs by the simple rights of the heart. The peril of having emotional sympathy without the corresponding intellectual appreciation is great, and the result of its possession without the corresponding intellectual power, is either lamentable or ridiculous. Narrow emotional sympathy tends to make the milk-sop. The teacher through his emotional nature does give the student food, but it is food for babes. The teacher who has emotional sympathy only or chiefly is a teacher unworthy

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and unable to teach hardy, vigorous, and virile youth.

The teacher is also, it is realized, to know the relations of the subject he teaches. Of course he is to know his subject. He is to know far more than his subject. For no subject stands alone. It holds associations with other fields of knowledge. No one can teach one subject well unless he know other subjects also well. For instance, geology has relations to elementary mathematics, to chemistry, and to systematic biology. Physiography has relations to sociology and economics, and to literature, and is itself a very good introduction to all the sciences. Physics has relations, on the one side, to mathematics, especially to calculus and quaternions, and on the other side, to chemistry. Greek has relations to German and to French as tools, and even the mythology of the Greek has relations to astronomy and geology. Economics has relations to history and to courses in the law, and also it has relations to applied sociology. English literature has relations to English history, and also to the Italian classics, as well as of course to the chief ancient classics. Philosophy has relations to mathematics, to the sciences, and

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to the languages, and also to history, economics, and literature. Likewise to the end of the whole course; every subject has relations to every other subject. No teacher can teach, as I have said, any one of these subjects adequately unless he know and feel the relations which the subject he teaches bears to the other subjects. The teacher is to be broad.

A third thing which the community has come to feel should be found in the best teacher is what I call, in the Scriptural phrase, aptness to teach. Aptness is born of clearness of statement, facility of seeing, impressiveness of expression. Clearness of statement has, of course, as its primary source clearness of understanding. But there is many a teacher who understands his subject well enough, who is at the same time unable to explain his understanding with clearness. Jacob Abbott, who was not only a prince among teachers, but also a wise counselor among all people, said once that there is hardly any subject which cannot be made clear to the mind of a child if the statement of it be clearly made. It should, for instance, be possible to explain to children the precession of the equinoxes. Given children of the age of ten, good training, and given, too, a

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teacher who can use good language simply, and the result will be complete understanding on the part of the little body. The simple statement of one truth is connected with the statement of another truth by a simple intellectual process. The appreciation of one truth leads to comprehension of truths. Fitting illustrations are to be used. Dickens somewhere says that criticism is not worth a farthing unless it be accompanied with innumerable examples. Of course the examples are not to be used because of their beauty, or because they display learning or eccentricity; such illustrations as explain or impress the teaching are to be used. Such aptness vitalizes teaching.

The growing conception of the worth of the teacher's work has caused special emphasis to be put on the word "love." The teacher is to love the student. By "love" I mean a will to help the student. I do not mean emotional love which delights in the presence or society of the student. I mean that element of character which goes down through the surface-soil of the heart, — and fertile soil it is, — to the bed-rock of the will, rock which is fertile and which helps to make the soul lastingly productive. The teacher is to have a will for

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the student's betterment. As a teacher this is to be his strongest volition. As an investigator the teacher searches for truth. As a teacher, he searches for the student. There are, we are coming to see, two kinds of teachers, and only two kinds of teachers. The one teaches subjects. The other teaches students. The one has for his primary aim the explaining of a truth, and the explaining of a truth is important. The other has for his primary aim the use of truth as a means of seeking the student. "What do you teach?" was asked of a great chemist. "Boys," was the reply. The question, therefore, respecting the teacher with reference to the student, is not how little but how much does he know. Let him explain or decline to explain, let him have or not have emotional sympathy, let him know his subject with thoroughness or with thinness, in narrowness or in breadth, but let him have a good will for the student.

And yet it is also to be said that the teacher who is tireless and alert in blessing the student is to possess in himself the capacity for growth. He is to represent the growth of the vital life and the life of a vital growth. The teacher is not to be like the masters in the universities

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of the Middle Ages. They commanded, commented, commended, says Compayré. They invented nothing. They ground away at the empty mill of dialectic. They wore themselves out in subtleties, in fine distinctions, in quibblings. The teacher who marks time has, or ought to have, no time to mark. When the teacher ceases to become a better teacher, he begins to become a worse teacher. The teacher is like the bicycle: progress is the only method of steadiness, of effectiveness. Sir Henry Sumner Maine writes of two types of society, the stationary and the progressive. The teacher is ever to represent the progressive individual in the progressive society. Teachers, as a rule, have become better teachers with each passing decade. The members of no other profession are so eager for self-improvement. No other profession gives so much time to self-improvement as the teaching profession. The minister, the lawyer, the doctor, too often improves himself only under the motive of compulsion. He belongs to no system or order in which his professional superiors constantly urge or order him to read certain books, to adopt certain conditions for his professional culture. But the teachers in thousands of cities and towns

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are directed to employ various agencies and forces for their self-improvement. No superintendent of public schools is worthy who does not provide opportunities to make his teachers better teachers. No college president is wise who does not grant time for research to the members of the faculty of which he is an officer. The teacher is to have a good will towards himself in order to have the best will towards his students. He himself is to grow in order that he may promote growth in others.

Following in the same pathway of enrichment, the present-day teacher possesses in himself intellectual and executive facility. Every man is in his work in peril of following the line of least resistance. The line of least resistance is the line that has been marked and marked deeply by successful experiences. One continues to do what one has done. The past determines the present and prophesies the future. The problems of the teacher are new every morning and fresh every evening. No day is typical. Every day is unique. The work of the teacher is like the work of the railroad superintendent or of the manager of a lake fleet, — the unexpected is always happening.

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Problems are constantly emerging. Such a condition creates interest, adds zest, and gives the satisfaction of doing hard things. The teacher's pleasure is somewhat like that of the astronomer in discovering stars. He knows not what the next moment, or hour, may bring forth. Therefore the teacher must be facile in thinking and also fertile in doing. He has no formula by which he can solve his problems. He has no mould into which he can run the hot metal of his perplexities and have the results come forth as he wishes. The teacher must save his student. If he cannot save the student in one way, he must adopt another way. If he cannot save the boy by talk, he must by tasks; if not by tasks, he must by books; if not by books, he must by fraternities; if not by fraternities, he must by personality.

The teacher of these present days has a conception of his sciences and of his art, not as a means of knowledge, but as a means of creating power and forming character. Knowledge is to be secured with accuracy, comprehensiveness, sense of proportion, thoroughness; and knowledge thus secured represents the method for securing the power to think. Knowledge vanishes, but the power to think,

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an intellectual power corresponding with the emotional and volitional power of love, endures. But in addition to aiming at the power to think, the teacher is ever and always seeking to train the character of the student. Character is what the student is. It is the whole nature. The intellect is to be trained in the power to think. The character is to be trained as a condition for large being. Men are very eager for doing things. Judged by the highest standards, being is doing. Being is the most practical thing in the world. For, as the "Ratio Studiorum" of the Jesuits suggests, "the knowledge and the love of the Creator" is the result of the labor of the scholar. In the present struggle for material advancement and supremacy, in the clang of industries, the still small voice of character represents the revelation of God. The power to think is the most practical power; the worth of character is the most practical worth.

I also believe that the good teacher of these last decades recognizes in his profession a mighty force for the betterment of man: I was about to say the mightiest force. For the members of every profession are inclined to worship its ideals, to believe that its gods are the

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most powerful and beneficent. Such opinions help to make the members of a calling loyal to its interests and eager to promote its purposes. Yet I do venture to affirm that the teacher can say with more truthfulness than the members of any other calling, that they are doing the most for the advancement of civilization. The family, the church, literature, personality, — these are the great powers that make for the betterment of man. But the essence of the power of each of these belongs to the teacher as a teacher. The family is founded on the principle of love. The church is founded on the principle of the relation of the individual to the Divine Being. Literature represents knowledge and culture. Personality embodies the worth of the individual as a humanizing force. The love upon which the family is founded the teacher feels and uses. The relation of the Divine Being, the infinite, which the church represents, the teacher also employs as an impressive force. Literature represents at once the condition and the tool which the teacher uses and which personality embodies. They are the holiest and the noblest agencies which the teacher can have for securing the highest ends of his profession and the highest

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ends of civilization. It is not, therefore, too much to say that the teacher can justly believe that his calling is of the highest service for human betterment. But while the teacher is loyal to his profession as a force in civilization he is also to have what I shall call an enthusiasm for humanity. If he believes in his profession as a means and a method, he is to believe in the perfectness of humanity as an end, for the securing of which his profession was formed. The teacher has a special reason for such an enthusiasm. For he works in and for humanity. What bugs are to the zoölogist, what electricity and light are to the physicist, what stones are to the geologist, what gases are to the chemist, boys and girls are to the teacher. It has been said of Agassiz that "no naturalist has admired every object of natural history with the enthusiasm of Agassiz. He stood in ecstasy before a zoölogical specimen; whether it was living or fossil was of no importance to him. I doubt if any one has ever handled a specimen with such reverence and veneration as Agassiz always did."¹ The reverence and veneration which Agassiz had for the

¹ Marcou, *Life, Letters, and Works of Louis Agassiz*, vol. ii, p. 283.

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zoölogical specimen the good teacher is to have for the boy. Man seems capable of indefinite improvement. He has come through long geological epochs to his present stage. He is going onward and upward by stages that are still geological in their moderation of movement and their length of being to stages yet higher. He is the splendid crown of all the ages past; but the end of each passing century adds a gem. The law of unselfishness is the law of stable and progressive societies. Humanity does move forward. The teacher is to make such a humanity as is cause and result for the faith of the optimist. Such a vision creates reality. One is able to do because he thinks himself able. In life is not a little to create the pessimist, but in life is more to create the optimist. If it is not true that all things are best, it is true, as Bishop Thirwall said, that things are for the best. If one is not an optimist he is to be a meliorist. This enthusiasm for humanity helps to make that part of humanity — youth — in which the life of the teacher is cast the very realization of what he thinks it is to become.

There is one further, and it is the last, element to which I wish to allude which is con-

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spicuous in our time. It is the greatness of the personal being and character of the teacher. Here one need not multiply words. Each phrase becomes significant. Whatever may be the elements that compose this greatness of personal being, and they differ with different individuals, it is clear that personal being and character are to be great. The elements may be those of courage, energy, enthusiasm, which are the elements which are said to have made Edward Thring of Uppingham great; or they may be the elements of equipment and aptitude, which are more common, but at all events the man himself is to be great. He is to be, so far as he can be, what he was who is still called the great schoolmaster of England, Arnold of Rugby. His eldest son, himself an educator, in November, 1857, on visiting the scene of his father's great work, sang, in his poem on Rugby Chapel:—

But souls temper'd with fire,
Fervent, heroic, and good,
Helpers and friends of mankind.

.....
Radiant with ardour divine.
Beacons of hope, ye appear!
Languor is not in your heart,
Weakness is not in your word,
Weariness not on your brow.

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Ye alight in our van! at your voice
Panic, despair, flee away.
Ye move through the ranks, recall
The stragglers, refresh the outworn,
Praise, re-inspire the brave.
Order, courage, return;
Eyes rekindling, and prayers,
Follow your steps as ye go.

When one applies these categories to the teacher in the American school or college, one realizes how deficient his teaching is. It should, however, be said that there have been great teachers in the American colleges of the last decades. It would usually be confessed that Mark Hopkins was a great teacher. His power of using his conceptions of truth in training mind was, perhaps, unrivaled. Mark Hopkins was not a great scholar. His limitations of knowledge, even in his own field, were significantly and singularly marked. Francis Bowen, of Harvard, was a great teacher. He used the lecture and the text-book to waken the power of thinking in the man before him. I believe that the late Professor Park was a great teacher. He trained one to discriminate. I know that over certain men neither Hopkins nor Bowen nor Park had influence. To some Hopkins seemed logically unjust. To some Bowen seemed superficial, and to some Park

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seemed formal and mechanical. The personal equation, the relations of equality, the relations even of inequality, both in the mind of the teacher and in the mind of the taught, is ever to be considered.

The cause of poor teaching, as found in the American school or college, lies primarily in one condition. The college teacher has a far livelier interest in truth than he has in the student. The discovery, the interpretation, the promulgation of truth is far more attractive to him than is the use of truth as a propædæutic. The wife of a German professor remarked to him, "My husband, to-morrow the university opens." "My dear," said he, "it will interrupt all my studies." In his studies both the American and the German professor is more interested than in his students.

At this point is the need of careful discrimination. The teacher who does not love the search for truth, or who fails to embrace truth, when found, with a lover's delight, has no right to be a teacher. He should be expelled, if he declines to resign, from the sacred calling. The teacher who is now content to convey year after year the same teaching in the same vessels to successive generations of students

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finds the annual potion, or portion, becoming, not better, — like new wine, — but stale and staler. He may still drone and hum away, but he is really asleep. He is an object at once of pathos and ridicule. The college which obliges its instructors to give instruction so many hours a week that they have neither time nor strength left for personal studies has fallen into a process of slow intellectual stagnation, and of administrative atrophy. Too many of our colleges are in this state. Colleges are becoming known as teaching colleges and investigating colleges. The merely teaching colleges, whose professors fail to study in large and new relations, become weak through lack of substance. The merely investigating colleges, whose teachers are not teachers, but merely scholars making rich contributions to the stores of knowledge, become weak through a lack of exercise. Both colleges kill out and prevent the growth of the noblest manhood in the student. The student in both cases asks for the richest life. In the former he gets life, indeed, but it is thin and emasculated ; in the latter he gets the stone of a book.

It has come to be recognized that the better and the best method is embodied in the col-

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lege and in the teacher who becomes an expert in the knowledge of his department and who uses the stores of acquired knowledge to invigorate his teaching. Such teachers are not unknown. They still live, but they are few indeed, — lamentably few. The teacher who is rich in knowledge and loves his students, and who delights to pour out his knowledge to enrich and to form — and not simply to inform — his students, represents the inspiring type.

We compare the old education and the new; we contrast the old and small college of forty and fifty years ago, without laboratories or libraries, with the rich and large colleges nobly equipped. We are giving a better education to-day in the colleges and schools than we were giving twenty or fifty years ago. I am sure we shall give a better education in the future decades. But let it always be said that the college of our fathers and grandfathers, poor in purse, slight in equipment, weak in scholarship, had a tremendous influence in making our fathers and grandfathers greater men than the modern colleges make some of their sons. It made them greater by the devotion of the teachers to their students. Much love for the student plus little knowledge was, and is, more

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effective than little love for the student plus great knowledge. In certain ways the same condition, in kind, holds between the small and aggressive denominational college and the large and noble university. The large and noble university is far better, of course. But no one would think of denying that very strong men, even if narrow and prejudiced, have come and do come forth from what we call the ultra religious college. In the college, as in the home, piety helps mightily toward the formation of strong intellectual character.

If the college is concerned with the individual as the subject of general culture, the graduate school of the university is concerned with him as a subject of large special training. The graduate department is essentially a school for the training of teachers; the training thus offered is less of the methods of teaching than of the content of knowledge and of the ways and means of research. The college teacher still rebels against normal instruction. His feeling is the echo of a once powerful protest against "devices," "fads," and semi-charlatanism. The growth in the number of graduate schools, the improvement in their faculties, and the increase in the number of

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their students, throughout this period under review, is great. In the year 1872 there were less than two hundred graduate students in American universities and colleges. In the closing years of this period the number had become more than six thousand. In the tenth decade of the century the increase was almost at the rate of five hundred a year. The reason of this enlargement lies largely in the fact of the enlarged conditions for promoting a higher type of scholarship and of culture in the professoriate. The increase in the number of American students taking graduate courses at home has been contemporaneous with the decline in the number of American students studying in German universities. It is thus that the American university seeks to make teachers who realize Plato's ideal as set forth in the "Republic": "Lovers not of a part of wisdom, but of the whole, . . . of a well-proportioned and gracious mind, . . . noble, gracious, and friends of truth, justice, courage, and temperance."

Yet it must be confessed that the ability of those who are entering the profession of teaching in these recent years is not so great as it was in the earlier time. The average

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ability, in the judgment of certain of their teachers, of the students of the graduate school of Harvard University is not so high as the average ability of the senior class of Harvard College. The reason for the unpopularity of academic teaching as a profession relates to large human relationships. One reason is found in the increase in the expense of living and the lack of a corresponding increase in salary. Further reason is found also in the enlargement of opportunities in other callings for large human service. The development of civilization has vastly increased the field in which strong men can be useful.

CHAPTER VII

CHANGES IN COLLEGIATE CONDITIONS

Not far from the middle year of the period, Ambassador Bryce wrote, "But if I may venture to state the impression which the American universities have made upon me, I will say that while of all the institutions of the country they are those of which the Americans speak most modestly, and indeed deprecatingly, they are those which seem to be at this moment making the swiftest progress, and to have the brightest promise for the future. They are supplying exactly those things which European critics have hitherto found lacking to America; and they are contributing to her political as well as to her contemplative life elements of inestimable worth."¹

The interest in the cause of higher education has in the last forty years become more general, and becoming more general has, with many, become great. The college world is no longer a world apart. That index of what al-

¹ *The American Commonwealth*, vol. ii, p. 553.

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ways interests people — the newspaper — indicates the enlarged field. The daily paper gives far more space to college affairs — outside of the athletic — than formerly. But in a more fundamental form, the interest of the people is indicated. In more than half of all the states, and in fact in each of the newer states, what is known as the state university has become a necessary and normal part of the organization of public education. In not a few of these states, the university (which in certain ways can be fittingly called the crown of the whole scheme of public education) has a larger number of students, expends more money each year, exerts larger influence, and enjoys greater prestige than all the other collegiate institutions in the state combined. However true this remark may be, yet I hasten to add that other colleges of not a few of these commonwealths have, in these last decades and years, received a larger support and more adequate equipment than in any other period. The following table, prepared by Richard Lloyd Jones, is significant and impressive.

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COMPARISON OF ATTENDANCE AT FIFTEEN EN- DOWED COLLEGES WITH FIFTEEN STATE COL- LEGES FOR A TERM OF TWENTY YEARS

ENDOWED COLLEGES	1888	1908	COM. COLLEGES	1888	1908
Allegheny College	139	289	Univ. of California	541	3565
Amherst College	355	513	Univ. of Georgia	316	2860
Bowdoin College	261	304	Univ. of Kansas	483	2063 ²
Brown University	260	930	Univ. of Michigan	1850	5010
Columbia University ¹	1602	4096	Univ. of Missouri	412	4200
Cornell College	1005	3734	Univ. of Nebraska	406	3350
Dartmouth College	418	1219	Univ. of N. Carolina	203	890
Harvard University ³	1810	4438	Univ. of Texas	250	1832
Lafayette College	278	442	Univ. of Illinois	500 ⁴	4743
Princeton University	603	1301	Univ. of Wisconsin	637	4014
Univ. of Pennsylvania	1172	4279	Indiana University	398	2050
Vassar College	300	1000	State Univ. of Iowa	554	2305
Wash. and Jefferson Coll.	215	440	Ohio State University	343	2636
Williams College	282	475	Univ. of Minnesota	412	4200
Yale University	1180	3433	Univ. of Tennessee	426	755
Total	9,880	26,893	Total	7,952	42,859

FORTY-SEVEN ENDOWED COLLEGES AND FORTY- SIX COMMONWEALTH COLLEGES

ENDOWED COLLEGES	1898	1908	COM. COLLEGES	1898	1908
Allegheny College	326	289	Univ. of Alabama ⁴	659	1060
Amherst College	377	513	Univ. of Arizona	156	69
Beloit College	414	303	Univ. of Arkansas	790	1684
Boston University	1454	1450	Univ. of California	2196	3565
Bowdoin College	379	304	Univ. of Cincinnati	456	1264
Brown University	909	930	Univ. of Colorado	700	1044
Bryn Mawr College	310	407	Univ. of Florida ⁵		105
Bucknell University	419	538	Univ. of Georgia	470	2860
Colby College	220	242	Univ. of Idaho	300	550
Columbia University ¹	2422	4096	Univ. of Illinois	1750	4743
Cornell University	1835	3734	Univ. of Kansas	1064	2063 ²
Dartmouth College	670	1219	Univ. of Maine	320	788
Denison University	378	584	Univ. of Michigan	3299	5010
De Pauw University	480	850	Univ. of Minnesota	3010	4200
Georgetown University	684	781	Univ. of Missouri	818	2536
Hamilton College	155	180	Univ. of Montana	203	393
Hamden-Sidney College	128	127	Univ. of Nebraska	1915	3350
Harvard University ³	4253	4438	Univ. of Nevada	335	367
Hobart College	94	105	Univ. of New Mexico	100	160
Johns Hopkins Univ.	641	675	Univ. of N. Carolina	670	890

¹ Including Barnard College.

² Including Radcliffe College.

³ Estimated.

⁴ Including Alabama Polytechnic Institute.

⁵ University of Florida founded in 1905.

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ENDOWED AND COMMONWEALTH COLLEGES,

Continued.

ENDOWED COLLEGES	1898	1908	COM. COLLEGES	1898	1908
Kenyon College	175	118	Univ. of N. Dakota	362	875
Knox College	650	625	Univ. of Oklahoma	220	700
Lafayette College	310	442	Univ. of Oregon	300	714
Lehigh University	321	698	Univ. of S. Carolina	139	281
Leland Stanford Univ.	1224	1738	Univ. of Tennessee	355	755
Middlebury College	106	203	Univ. of Texas	800	1832
Ohio Wesleyan Univ.	1311	1099	Univ. of Utah ¹	567	1428
Princeton University	1103	1301	Univ. of Vermont	539	499
Roanoke College	191	206	Univ. of Virginia	600	785
Rutgers College	168	255	Univ. of Washington	239	1330
Smith College	1070	1482	Univ. of Wisconsin	1767	4014
Swarthmore College	186	332	Univ. of Wyoming	186	250
Syracuse University	1092	3117	Coll. of City of N. Y.	1132	1208
Trinity College	135	208	Delaware College	91	189
Tulane University ¹	856	1792	Indiana University	1049	2050
Union College	195	280	Iowa State College	539	1664
University of Chicago	2500	5070	Louisiana State Univ.	250	635
Univ. of Pennsylvania	2343	4279	Univ. of S. Dakota	355	417
University of Rochester	216	244	Miami University	145	1077
Vassar College	614	1000	Ohio State University	1150	2836
Wash. and Jefferson Coll.	340	440	Ohio University	435	1336
Wash. and Lee College	140	478	Penn. State College	293	1050
Wellesley College	654	1209	Purdue University	750	1901
Wesleyan University	330	320	State Univ. of Iowa	1331	2305
Western Reserve Univ.	750	914	State Univ. of Ky.	434	1063
Williams College	888	475	West Va. University	845	1517
Yale University	2500	3433	Total	34,653	70,013
Total	36,907	53,532			

¹ Including Newcomb College.

² Including Utah Agricultural College.

The recognition has also become general that the higher education represents the best condition for great beneficence. With this recognition is united the knowledge that the higher education is tremendously costly, and, some might add, extravagantly costly. It belongs to those utilities the value of which is not to be measured in the scales of the mint,

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although these utilities cannot be purchased without gold. At the decennial celebration of the University of Chicago, both the founder of that university and its president intimated in public addresses that the cost of the establishment and carrying on of the University of Chicago for ten years was far more than they had first imagined. With appreciation of the necessarily great cost of higher education has gone along the assurance that it is worth while to meet this cost. The price is high, but the result is worth the price.

Many small beneficences are useless, and worse than useless. They create or foster the ills they are designed to cure. If they do not create or foster evils, they do nothing toward the cure. It is easy to waste money in college work. The founding of colleges with small sums of money, and unto small achievements, is wastefulness. The founding of such colleges may do somewhat of good, but it also does much and more evil. Speaking of a certain college, a friend of mine said, "That college, that college, which did all it could to keep me from getting an education." Such a college may inspire certain youths to go on, but it satisfies more youths to stay where they are. Be it

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said, that the great beneficences are not in the like peril of failing to accomplish their design. Great beneficences are public. Negligences are easily seen, reached, corrected. Extravagances are more conspicuous; they are more fittingly lopped off. Great beneficences command great talents in their administration. The college is public. Its trustees are among the ablest and most upright citizens of the commonwealth. Great beneficences represent conditions which are related to the world, not to a neighborhood; and to all time, not to a day or a decade. All this is true, and more than true, of the great college, in the increase of the esteem in which it is held by the American people. For the condition is made evident in the record of gifts to the colleges in recent years:—

1889-90	.	.	.	.	.	.	\$6,006,474
1890-91	.	.	.	.	.	.	6,849,208
1891-92	.	.	.	.	.	.	6,464,438
1892-93	.	.	.	.	.	.	6,532,157
1893-94	9,025,240
1894-95	5,350,963
1895-96	8,342,728
1896-97	8,390,938
1897-98	8,204,281

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1898-99	20,327,671
1899-00	11,995,671
1900-01	18,040,413
1901-02	17,039,967
1902-03	13,700,559
1903-04	.	.	.	.	.	16,678,952
1904-05	.	.	.	.	.	17,716,605
1906-07	.	.	.	.	.	22,869,180 ¹

A further element of the college condition relates to the interest of the colleges in themselves. The faculty of the American college is now interested in scholarship and education. Its members are chosen on the ground of their attainments in scholarship and of their abilities as teachers. The faculty indeed has more interest in scholarship than in education, but each is of deep concern. The course of study as an intellectual gymnastic was never of so much significance to the college professor. The executive officers are selected with a sense of pronounced fitness for their administrative duties. Each college is eager to secure every possible advantage in the materialities of equipment, in endowment, and in the atmospheric condition of prestige and representation. The competition for students, in most

¹ *Reports of United States Commissioner of Education.*

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instances worthy, in others silly or mean, illustrates the vitality of the ordinary institution. The college is no longer content to exist on an honorable foundation, possessing whatever dignity age and noble association can bestow; the college has become a force, alert, flexible, strong.

This interest of each college in its own individual problems is manifest in the interest of every college in every other, and in the cause of higher education throughout the world. The first colleges in America were colleges of the Cam and the Isis transplanted to the banks of the Charles and of the James. This condition continued for one hundred and fifty years. The French influence, commencing in the aid given by that nation in the War of Independence, in the beginning of the nineteenth century became a dominant atmosphere, or even force, and continued for two or three decades. Through the last three quarters of the last century, the German influence was dominant. The thoroughness and largeness of German scholarship has profoundly affected the American college. German scholarship has liberalized American education. No college now exists in and of,

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or for and by, itself. It is one of a brotherhood. No college holds its treasures for itself. The altruistic motive prevails. Academic solidarity was the sentiment most dominant at the inauguration of President Lowell.

This unity of education is not only horizontal,— it is also perpendicular; it extends upward and downward, as well as outward. The college has come to bear relation to the high school on the one side, and to the professional school on the other, as well as to other colleges. It no longer pursues its course unrelated to other orders and conditions of education. This relation has special significance at the present time, in the vast advancement of secondary education, as a ground of assurance of the progress of college education in the immediate future. The late commissioner of education, Dr. Harris, said at the Detroit meeting of the National Educational Association in 1901: "It would seem as though the whole population of the country, in all its sections, . . . had resolved to have free high school instruction for its children, for in the past ten years—and three years, 1895, 1896, and 1897, were years of financial disaster— there was an increase in the total number of high schools from 2526

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in 1890 to 6005 in 1900. The number of high schools in the United States in 1860 was about forty.”¹ Doubt was expressed whether the constitution of the various states permitted free high schools. By 1870 the 40 had increased to 160; by 1880 the 160 had increased fivefold, to 800; and in the next twenty years the increase had reached to 6000.¹ Such an increase in the schools, and a consequent increase in the number of the students of the schools which fit for college, is a result of the largest significance and hopefulness for the college. For while the high school prepares for other conditions than the college, it, on the whole, is the source to which most colleges must look for students.

But to professional education the relation of the college has become more intimate. It was formerly held that the minister alone of all the professional gentlemen needed a literary education. The first colleges were founded with a distinct ecclesiastical, and even clerical, purpose. It has now become evident that education is quite as necessary to the lawyer and physician as to the clergyman. The best professional schools of law and medicine require

¹ *Proceedings of National Educational Association*, p. 175.

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that training represented in the A. B. degree before allowing the student to enter as a candidate either for the LL. B. or M. D. degree. The perpendicular unity of our education is most significant.

With this appreciation of the value of higher education to members of the professions has gone along, also, an increased appreciation of its worth in industrial and commercial callings. Recently I wrote a letter to each of the presidents or general managers, of the hundred principal railroads of this country, asking the question, whether he would advise a boy of eighteen, the graduate of a good course in a good high school, of intellectual parts, who proposed to enter the railroad service as his life's work, first to go to college. The general strong tone of all the answers was, that the boy should be educated, and that the college represented the fitting means and method and condition for giving him an education. One president of one of the largest railroad corporations said:—

“The transportation business of this country is becoming more and more, every year, an exact science, and the advantage of a college education in disciplining and developing the

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mind, cannot be overestimated. I believe that in future, as a rule, the managers of the different railroads in this country will prefer to employ young men who have obtained a thorough collegiate education, rather than those who have not gone beyond the limit of a grammar or a high school."

A seventh element in the collegiate condition lies in the fact that the college has risen to a new sense of vitality. It has come into closer touch with life. Nothing that is human is now foreign to it. This increased vitality is made evident in two ways: first, its relation to religion; second, its relation to its own courses of study. (1) Formal religion has declined, vital religion has increased. More students are now found enrolled on the register of church members. But it has become more difficult to support the daily and weekly prayer-meeting. The fellows talk less about religion, but they are more eager than ever to help a fellow. They ask less often, "Is your soul saved?" and they are doing more to save the other fellow in body, mind, soul, and estate. They put the question, "Am I saved?" less often and less anxiously to themselves, for it has become an unconscious presumption that, doing

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what is right, their souls are and must be saved.

(2) A keener sense of vitality is also seen in the course of study. This new sense of life is manifested both in the course and in its form and method of presentation. The studies, social, political, psychological, historical, have vastly developed. The presentation of all study is made from the side of humanity.

It is also to be noted that the college has become a body of scholars, and of educational administrators, larger and nobler. One cannot, indeed, forget that the names of scholars of recent years which are most frequently on our lips are not the names of Americans. They are the names of Darwin, Baer, Max Schultze, de Bary, Stas, Ostwald, Mendeléeff, Bunsen, Wurtz, Laurent, von Hofmann, Gerhardt, Kekule, Kelvin and many others, in almost every field of human investigation and scholarship. But it is still to be said that the world's galaxy of scholars does include Goodwin and Gildersleeve, Remsen and Morley, Brooks and Gray, the Agassiz, father and son, Marsh and Osgood, and James and Ladd and Royce. A great race of educational executives, such as Angell and Northrop in the west, and Eliot, Butler, and Schurman in the east, has arisen.

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If we cannot lead the world's scholarship in all fields, we can lead the world in educational administration.

In this period, too, it should be said that there has occurred a great improvement in the health of the students. The American student, either man or woman, of the age of twenty, is on the whole the healthiest person in America. This most worthy result has been secured both through gymnastics and athletics. There is still a question in the minds of many as to the value of athletics. There is no longer any question touching the value of gymnastics. But on the whole, the worth of athletics is far greater than its worthlessness. Athletics do represent, it must be confessed, wastefulness of time on the part of a few students, wastefulness of money on the part of some; but they also represent an increased interest in health on the part of the whole student body, an increased power of control of appetite and also a training in the proper adjustment of the intellect and will in executive and administrative service on the part of many. Football, the most significant of all college games, can be defended on the ground of being a training for the brain, a training for the heart, and a training for the

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will. With all that may be said against athletics — and much may be said — much more, very much more, may be said in their favor. The credit arising from athletics, to be placed to the advantage of the American college, is great.

One should not fail to set down in emphatic form the increasing appreciation of the worth of woman's education. This worth relates not only to woman, but to man. Discussion regarding woman's education prevails, and will continue to prevail, for decades. The discussion relates to the method, — whether the best is separate or coeducational. The discussion relates, also, to the purpose as well as the method, — whether it should be of a general character or a special, whether it should fit a woman to become a wife, or whether it should give to her a general training in culture. The discussion relates, also, to certain effects, — whether it lessens health, whether it takes away what is generally known as "charm." But the essential thing to be observed in all the discussion is, that it is generally agreed that the education of a woman should make her a thinker. When her college education has made woman a thinker, doubt can no

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longer exist that education is doing for her what it should do for her brother, and is doing for her what it is doing for her brother, — it is fitting her to fulfill more adequately whatever function in life she is called upon to fulfill. If she is called to be a wife and a mother, she will be a more worthy wife and mother; if she is called on to be a librarian or private secretary, she will render service more acceptable.

These interpretations, some ten in number, of collegiate changes represent advantages. They concern each side of academic life, — administrative, scholarly, pedagogical, public, and institutional. They are of priceless worth. Over them one may humbly exult.

But other changes which have occurred are not advantageous. They are injurious to the college, and through the college to the community.

The first disadvantageous change which I shall mention relates to the official governing board. This board, whether a close corporation or one made in part only by itself and in part by the alumni or by ecclesiastical or other appointment, is, taking all the colleges together, altogether too ignorant of the special work, and also lacking in interest in the special

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work, which it is called upon to do. I hasten to add that there are colleges of which this statement is absolutely false. Such colleges I know intimately, and to them hold close relations. But also I am obliged to say that on the board of almost every college are those who do not know the business they were elected to do, and who are not deeply interested in the doing of this business. The gentlemen who compose the boards of trustees in most American colleges have been chosen for manifold reasons: some because they have been successful in managing their own affairs; some because of ecclesiastical affiliations; some because of social reasons; some because of personal popularity; some because they are scholars; and some because, though not scholars, they are interested in and appreciative of scholarship. Men of all sorts and conditions it is well to elect to be members of a college board, but the primary reason for any such election is that they are able to render service to and through the board itself to the cause of education. Boards constituted of members chosen for some of the reasons which I have just noted do not provide a promising ground for wise and efficient administration.

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In general, men who are scholars themselves and who know what scholarship is, should be found in larger numbers as members of boards of trust. And men, also, of large public spirit, who are able to promote the adjustments which colleges are constantly obliged to make to the people and to their own immediate community, should be willing to serve. Sir John Gorst, formerly vice-president of the English Board of Education, is reported to have said in a debate in the House of Commons: "Are we to keep up in this house the farce that school boards are elected for educational purposes? Everybody knows that educational purposes are the very last ideas in the minds of the members of the school boards. I have heard that they are elected, some on religious grounds, some on party grounds, but I never heard of any one being elected on educational grounds." The condition in the American college in respect to choosing trustees is not so lamentable as the conditions in England to which Sir John alludes, but the prevailing conditions represent a weakness in the college.

It is also not to be denied that there is still a great deal of inefficient teaching. It is less than it was in amount, it is less inefficient than

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It was in quality, but it is still enough in amount and poor enough in quality to make this reference inevitable. Inefficient teaching in the college, as out of the college, is the result of (1) a lack of vital force in the teacher; (2) a lack of scholarship in the teacher; (3) a lack of interest in either subject or student on the part of the teacher. Every college teems with examples of the method to which I sadly allude. The president knows of the inefficiency, the trustees are not ignorant of it, the whole faculty is more or less acquainted with it, but to remove such teachers might work harm greater than does their retention. This inefficient teaching results in inefficient scholarship and in unmanly manhood.

A third debit relates to both the teaching and the student body. The college is not, on the whole, training its men sufficiently to do hard things and to bear hard things. The college is training the gentleman; the college should train the gentleman; the gentleman represents the noblest product of the Anglo-Saxon civilization, and Anglo-Saxon civilization is the highest product of the world's progress. In the splendor of this result, it is still the duty of the college to teach men to endure

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hardness as good soldiers. The college is not a military school. One dislikes to see college men dressed in uniforms and engaged in drill. The gown and not the military cloak is the scholar's garb. But there is an element in the military school which the college man should have — it is the element of the inexorable, of duty to be done at any cost, of obedience, prompt and complete. The lack of this element of the inexorable, of duty, of obedience, is the only ground which can properly be made the basis of any argument against the boy who is to enter business, going to college. The college gives freedom, offering provision for excuses, possesses a certain power of giving the student opportunity for consulting his own convenience, and provides other advantages which are not permitted in the same degree in actual life and labor. The student thinks sometimes he is used pretty hard, and is inclined to be rebellious at restrictions which some colleges make, and shrinks from penalties which some colleges assess; but most colleges are too lax, too lenient, too easy.

Most college men have come to be inclined to make their college course a too direct preparation for their work in life. At this point dis-

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Crimination should be made. Preparation for work in life should be direct. Professional preparation is long, constant. The best doctor must spend six, seven, eight years in professional studies and in securing professional equipment. Competition in the professions themselves is keen and prolonged. But the truth is that a man who comes to college should be willing to free himself from paying his first vows at the altars of the god of Haste. The college student becoming a professional man should be distinguished by breadth of view, liberality of learning, and largeness of judgment. He should not in his freshman year elect constitutional history, anthropology, and sociology because he purposes to become a lawyer; he should not in the same year elect philosophy, psychology, and literature on the ground that he proposes to become a minister: he should not in this year elect chemistry, biology, and physics on the ground that he proposes to become a physician. College men do make such elections, and on such grounds; they are foolish. If the college senior, or even the junior, make elections on such ground, he is saved from narrowness, and saved unto professional efficiency. But the haste prevailing

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outside the college walls attacks the student within the college walls. How seldom a man says to the college dean on admission to the college, "I am willing to take all the time I need for giving myself the best education I am capable of receiving"; how often he does ask, "Can't I get through in three years?"

One, too, cannot deny that public and academic judgment inclines to the verdict that there are colleges which should die. Their presence, even exercising the virtue and the grace eulogized in the 13th of 1st Corinthians, is a menace to education and to civilization. They are, indeed, be it said, dying, but they die hard. More of them, too, are dying than are being born. They are found in the West, west of the Mississippi, west of the Alleghenies, but they are also found east of the Alleghenies. In Ohio the history shows that a good many have died. The college annals of other states, too, bear a mortuary aspect. But the presence of the poor college is a weakness to the whole college system.

In this comparison of increasing strength and of disadvantages of the earlier time and the later lies a comprehensive question, the place of the small college and of the large in

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an educational system. It forms one of the more serious questions arising in these decades.

In discussing the advantages and the disadvantages of the small college and the large, as in discussing the advantages and disadvantages of most institutions and movements, the argument turns upon the definition. One may define the small college as the college in which all the members of one class can be assembled for purposes of recitation in a single room at one time. Such a college would not have over a hundred students, or, at the most, not over one hundred and fifty. But a college, too, whose numbers do not exceed three hundred may be judged small. A college of less than three hundred students would not be called large; and a college of more than three hundred and less than six hundred would be called large, or small, or of moderate size, according to the standards of comparison. But a college of more than six hundred members, having a senior class of one hundred or more and a freshman class of one hundred and fifty or more, would be considered large.

The comprehensive advantage which the small college is supposed to represent is the

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individuality of attention. The student becomes the object of notice more prolonged, more definite, more personal. He counts for more; he is one in one hundred or three hundred, not one in one thousand. He receives more discriminating thought from professor and faculty. In the classroom he recites oftener, and out of the classroom his welfare is more carefully considered. He is not absorbed in the mass. That symbol of good teaching, "he calleth his own sheep by name," touches him more directly, constantly, powerfully.

The individuality of attention relates also to the student as the active, and to the teacher as the passive, force. In the small college the professors are the object of more definite attention from the students. Their number is smaller, and the number of subjects each one teaches larger. The personality, therefore, of the teacher is more present to, and more potent over, the student. The teacher is far better known to the student as well as the student to the teacher. The professor of philosophy in a college of two hundred men is better known to his students than the head of the department of philosophy in a college of a thousand students.

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The definiteness of notice has a still further application. It extends to the mutual relations of the students. In a small college or class every member knows every other; in a large college or even class no member knows every other. In a small college the individual is more significant. In a small class is an *esprit de corps* which does not usually obtain in the large. Each member is closer to every other. They fight the same battles; they suffer the same defeats; they win the same victories; they pass through the same experiences; they live the same life. Similar causes, results, conditions, purposes, and motives unite men; and such resulting unions are lasting, beneficent, inspiring.

As a consequence of these and like causes I am inclined to believe that the members and graduates of a small college are more deeply attached to their *alma mater* than are the students and graduates of a large college. As the love of the parent is greater for the crippled child, so the love of the graduate seems greater for the small college. The small college, of course, is presumed to be honest, laborious, devoted to the highest welfare of its men. Daniel Webster should not have said of his

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college in his great speech in her behalf: "It is . . . a small college; and yet there are those who love it"; rather he should have said: "It is . . . a small college, and there are those who love it"; or "It is a . . . small college, and therefore there are those who love it." The small college has more of life, less of the institution. The small college has more teachers who are professors of things in general. It has more teachers who are interested in students and fewer who are interested in teaching subjects. It is less open to the peril of believing that the final cause of the ordinary college is philosophy and not man. To such personality of attention the student responds. The large college may be more admired, possibly more honored, by its sons; the small college is more loved. This, however, I am inclined to write in rather an interrogative than a declarative mood. For if there be truth in this judgment, the truth has so many exceptions that justice should require one to be remote from the mood of the dogmatist or doctrinaire.

The defender of the large college might say that all the advantages which belong to the individuality of attention can be secured in the large college quite as well as in the small

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college. "Increase the teaching staff to an adequate number and the large college can look after the individual quite as well as the small." The remark is in a large degree true. But the fact is that the college large in number of students does not usually make itself proportionately large in the number of instructors. The enlargement of the staff is expensive, and colleges are — and ought to be, but not too much so — poor. The increase of students is often the increase of poverty; every student costing twice or thrice what he pays. But, further, mere numbers alone do not constitute an academic body fitted to educate carefully the individual student. The intellectual, ethical, personal worth of the individual teacher is quite as formative for the individual student as are the mere numbers who give instruction. Be it said that the instructors of a subordinate academic grade in a department are seldom able to do for their students what the head of the department is able to do. The head of the department in a small college is usually the whole department. Therefore, the personal power brought to bear in the training of the student in the small college may be, even if less varied and diverse, of a higher order.

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The considerations which in an historical development now favor the large college are somewhat more easily stated than those which favor the small.

The large college has usually a better equipment. Its "plant" is superior. Its laboratories are more adequate. Its library is of far greater worth. Adequate laboratories and, above all, a worthy library are advantages most precious. The library is the laboratory of laboratories; it is the workshop, providing tools; it is the heart, giving inspiring force; it is the brain, offering thoughts and the materials of scholarship. "Why do you go to that college?" a student was asked. "Because it has the best library," was the prompt reply.

The large college has also, usually, teachers who are more expert in their subjects. The power of the great college to attract expert scholars is practically absolute. The condition is almost, though not quite, as compelling in Germany as in America. Seymour and Perrin are called from Western Reserve to Yale, and they go. Wheeler is called from Vermont to Columbia, and he goes. Sterrett is called from Amherst to Cornell, and he goes. And these

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are examples taken from a single department of scholarship and of teaching.

It is also to be said that a larger number of teachers in the large college may constitute a distinct advantage. The teacher is always to find the student. Most teachers, it must be confessed, do not find their students. Not one teacher in five has an influence over the student which the student can distinctly and permanently appreciate. If the single teacher in a department of a college fails to adjust himself to the student, or the student to him, the student receives little or no advantage. The risk of this failure of adjustment is, of course, great.

But in a large college the large number of teachers in all departments and the several teachers in a single department distinctly lessen the peril. If the student fails to receive what he desires from one teacher, he can turn from him to any one of his associates. His elective preference of teachers, as well as of subjects, has a wider field of exercise.

It is further evident that the relationships in the large college are more numerous. The students come from a wider territory, are of an origin more diverse, and are following pur-

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poses of a greater variety, even if not of higher significance. California and Maine, Texas and Minnesota, are brought together. But the constituency of the small college is local. Most Bowdoin boys come from Maine, most Hobart boys from New York, most Wabash boys from Indiana. Relationships of diversity and breadth are of great value. They enlarge the character; they promote *savoir faire*; they help to constitute the student a citizen of the world; they develop a sense of universal friendliness and friendship.

In the same historical interpretation it may be added that the large college has the greater prestige. The greater prestige is of small concern to the undergraduate, but it may be of great concern to the graduate. This advantage may often save the graduate's feelings; and it also does frequently put money in his purse. "Why did you come to Harvard College?" asked a distinguished professor, who is no longer a member of the Harvard faculty, of different students. No satisfactory answer was given until a man was reached who replied, "Harvard graduates get better salaries in my city than the graduates of any other college." "Most clear and solid reason," said

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the professor. The training given in a small and unknown college may be superior to that given in a great and conspicuous college; it not infrequently is superior; but such training is obliged to prove its superiority. It lacks the mint-mark which is necessary for securing immediate appreciation and universal acceptance.

Between the advantages offered by the large and the small college no balance should or can be struck. The presence of numbers or the lack of numbers is only one of many characteristic elements of colleges. The college which is large, or the college which is urban, may be the better or the best college for one student; and the college which is small, or the college which is suburban or rural, may be the better or the best for another student. To ask which is superior is like asking whether one prefers purple or golden sunsets. The answer arises from the personal equation.

But the fact of the personal equation does permit the expression of certain definite judgments. To the student of ordinary ability the small college offers a heartier sense of sympathy, of fellowship, and of expectation of usefulness; to the student of extraordinary

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ability the large college offers far richer advantages for higher development and greater increase of his greater power. To the student who is working his way the small college is less expensive, but furnishes fewer opportunities for earning; the large college demands more money, but is able to make larger grants from its loan and other funds, and to furnish better facilities for self-support. To the city-bred man the small college in the country opens a new life, and to the country-bred man the large college in or near the metropolis opens also a new life. To the first the temptation of self-conceit or arrogance is presented; and to the second the temptation of intellectual and moral dissipation. The student of weak will — who, however, should seldom go to college — finds more adequate support in the personal ministrations of the small college; the student of strong will finds his individuality strengthened, even if made less unique, by the individualities by which he is surrounded.

In this investigation and comparison one is inclined to ask whether the small college is not better fitted to make thinkers, and the large to make scholars; the small better fitted to train men, and the large better fitted to teach

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subjects; the small better fitted to train the individual, and the large better fitted to discipline the democracy; the small better fitted to improve and enrich personal character, and the large to disseminate truth.

With respect to the large college, it has become evident that though its organization should be simple, and not difficult to make, yet its organization is usually far less simple than that of the small. The cost of administration is greater. A larger force is required to accomplish the desired results. Far greater attention is necessarily given to the organization itself. Among the most elaborate of the organizations of all colleges is that obtaining in the University of Chicago. One peril in such elaborate systems is that the president is obliged, or honestly believes he is obliged, to segregate himself from most relations with the students. This is, or should be, a distinct loss to the student, and a loss and sore trial to the president himself.

The primary question whether the large college or the small makes the greater contribution to the betterment of the nation and of humanity, is as easy as it is pleasant to answer. Both types are necessary, and both types are

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rendering very high service. The presence of a few large colleges, — and large colleges means few colleges, — as one for each state or group of small states, would result in the manifestation of scholastic forms more impressive, in buildings more magnificent, and in conditions material and intellectual appealing with greater fascination to the heart and mind. This would be a result akin to that which Oxford represents, making an appeal to the æsthetic sense and to historical associations. It would be a result, too, akin to that of the University of Vienna, making its appeal to the judgment for scholastic investigation and for efficiency through the concentration and consolidation of large interests. The presence of many small colleges — and many colleges means small colleges — allows the coming to these colleges of many youths who would not be able, or who think they would not be able, to go long distances from home in quest of a college training. In fact, many of these boys and girls would no more think of going to a distant college than they would think of going to the North Pole, so remote are their relations from college walls. Therefore, if the entrance into American life of college-bred men and women

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in large numbers be of value, the small college has still a work to do of the sort which it has done, in the training of boys and girls for the highest service to mankind and for the enlargement and enrichment of their own lives.

I venture to express a suspicion, and it is only a suspicion, that, if one were to count up the graduates of the small colleges of America who have rendered efficient service to the commonwealth and to humanity, and if one were to count up the graduates of the large colleges who have rendered efficient service to mankind and to the state, and if one were to compare these numbers with the whole number of graduates of the colleges of the two classes, it would be found that, great and lasting and noble as are the services given by the sons of the large colleges, the services rendered by the sons of the small colleges would be seen to be even greater and more beneficent. But, as I say, this is a mere impression. An examination of the facts might prove that it has no foundation. But no proper examination is possible. The elements of the comparison are too diverse. The endeavor to make such an examination would be like trying to treat

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ethical phenomena with the methods of mathematics.

The large college is the creature of the last quarter of the last century. For the larger part of that century the colleges of the greatest number of students, judged by present standards, would be denominated small colleges. It was seldom that the graduating classes of Yale or Harvard were of the size of the present graduating classes of certain country colleges of New England. The larger part, therefore, of the great work which American colleges have done for America and the world, the larger number of the noble men whom these colleges have trained for the betterment of the race, are the results of the small college. The small college has now become the large, and the small college also continues to exist. It remains to be proved whether the large college can do the great work for America and for all men which the small college has certainly done. The proof one awaits with both desire and expectation.

The unprejudiced interpreter is able, as he is glad, to see that the college in the last forty years has come into a larger life than it ever before lived. Education has become the great

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Intellectual interest of the thinking part of American people; and the American college has become indirectly, if not directly, the dominant part of the whole system of education.

CHAPTER VIII

THE TEXT-BOOK

THE history of what has become known as the text-book forms an important part of the annals of American education in the last half-century. The name indicates the idea that a book represents the essential teachings concerning a subject, as the text of the sermon represents, or is supposed to represent, the chief doctrines of the discourse itself.

The text-book is the teacher of teachers. If it is not a force which the teacher may substitute for himself, as it often, and perhaps too often, is, it is at least a condition through which the teacher presents a subject to the class. The wise teacher and large uses many text-books for his own training and for suggesting to himself the most effective methods of teaching. The text-book also remains for the student a permanent treasure-house where he may refresh his own declining memory, and whence he may draw specific facts for his own use.

The more obvious change in the character

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of text-books in recent years relates to the part of the publisher. The book has become a far better book, both to the eye and the hand. The paper is firmer, the ink blacker, the type easier for the eye, and the different forms of type serve to represent more clearly and impressively the primary and the subordinate truths presented. The composition is also fairer, the binding more lasting and more artistic. The illustrations and plates of many sorts are chosen with greater care, with better adjustment to the text, and are executed with higher taste.

The fundamental change, however, wrought in the text-book during this period, is that it is written for the purpose of teaching the pupil and not for the purpose of presenting a subject. The point of view has absolutely changed. The author of the text-book of the former time desired to give a scientific statement regarding his subject; the author of the present time desires to teach students. It is important, imperatively important, to make at times a scientific statement of a subject, but that work is distinct from the purpose of teaching boys and girls. A better psychology has come to prevail. The text-book represents a desire to

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adjust truths and the presentation of truths to the mind of the pupil. A careful study has been made by the makers of books of the content of children's minds. They have sought to adjust the progress of their instruction to the enlarging growth and the increasing power of those who are to use the book. The best text-book of the present generation represents the union of two elements, of a proper knowledge of the subject and a proper knowledge of the mind of the child.

Two types of the English grammar fittingly illustrate this difference. The earlier grammar began with an interpretation, more or less scientific, of principles and rules, stated with careful elaborateness. The book was of value, it helped the student to understand and appreciate the usages of English speech and writing. Its method was, on the whole, deductive. The later type has regard primarily for the general powers of the mind of the pupil. It begins where he himself is in his knowledge and in his use of words. It proceeds by easy stages to adjust to his growing power rules and principles. Its method, on the whole, is inductive.

Allied to this psychological condition is also

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the fact that the text-book has come to relate itself to the present or future needs of the student. The authors of these modern volumes have pictured to themselves the lives which these boys and girls are to live, and the work which they are to do. They have sought to make their books of practical value, adopting a clear interpretation of the ability of pupils. They have also found it not difficult to try to be of special service in their future careers. They have recognized that these boys are to be clerks and merchants, these girls heads of homes and heads of schoolrooms, as well as daughters at home. Under this conception of the student's future, changes revolutionary have been made in the text-books in almost every subject.

The old and absorbing subject of arithmetic illustrates how fundamental and characteristic is the change which has occurred. It has resulted in simplifying the whole treatment of numbers. It has cast out "true discount," which was never "true," and has given real discount, which is constantly used. It has eliminated that trying topic of "equation of payments," a topic quite useless in our present currency, and also "permutations" and "combinations." It has resulted in introducing

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into the problems of arithmetic facts which are immediate and vital. In one practical text-book under problems of magnitude are introduced questions on the building and the furnishing of a house. Amount of lumber, cost of plastering, of carpets, of papering, of laying out a garden and grounds are the topics considered.

In geography the change is hardly less fundamental. School geography has ceased to be concerned with mere facts and with exterior descriptions, and has become an interpretation of the world and of its peoples. It has come to represent reasoning processes about the globe and its inhabitants; it has become physical; the physical has become physiographical, and both have become commercial and social.

History, too, has taken on the elements of a story of the life, the customs, and the thoughts of nations and peoples. Wars no longer consume a large part of the interest. Kings and queens do not command so great a share of the student's attention. The way in which people live, day by day, the way they sit at meat, the books they read, the way they earn and spend their money, and the amount of money they earn or spend, the houses in which they live,

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the topics about which they talk, the schools to which they go, have become quite as important in the thought of makers of text-books as the story of Victoria's reign or the downfall of either of the Napoleons.

In a word, the text-book is humanized. It has come to be written with a desire to adjust it to the mental state and growth of students. It has also sought to follow the needs of the future life of these same students.

These books, moreover, represent a style of writing far superior to that obtaining in the earlier examples. The primary qualities of good style are more common. Other elements, not so essential as clearness and force, are frequently, even if not constantly, found. There are histories which are themselves examples of good rhetoric, and grammars which in their writing inspire pupils to write correctly, and historical text-books which are written by masters of historical composition.

In one department has occurred not so much a revolution as an expansion. In English literature the student has been brought into the reading of the great authors themselves. The reading-book of the earlier time taught the student to read, but it offered him little worth

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reading. The new book not only aids in getting the art of reading, but it also offers the best which our literature contains. The result represents the enrichment of the mind and the strengthening of the character by the noblest wealth of the race.

I wish, further, to add that in the improvement of the text-book for the American school and college in the last half-century, the publisher has borne a necessary and efficient part. Pecuniary motives have influenced, but they have not proved to be the only incentives to this high service. He has also desired to make books which should result in the enhancement of the welfare of the community. He has come to recognize that the community is more urgently demanding the most effective books for giving training and culture. To this end he has used due diligence and persuasiveness for securing the best writers.

The comprehensive result is that the text-books of to-day are far superior to those of the middle decades of the last century. They are, on the whole, superior to those of any people, though in respect to a certain deftness and beautiful clearness of writing the French text-books are superior.

CHAPTER IX

MORALS AND RELIGION

It would be almost humorous to say that the worth of practical morals has never been doubted by the American people; but it is evident that instruction in practical morals and religion has never assumed a large or a distinct place in American education. In the last half-century, however, the instruction has gained in amount and importance. The character of the individual student still continues to be the aim of the training both intellectual and ethical. Character is defined in ethical terms as, in the phrase of Aristotle, "an energy of the inner life on the lines of virtue." At times the word character is used to represent the whole ethical content of the individual, either good or bad, as "he has a good character" or "he has a bad character," and at times it is used without any epithet, to represent the good man, — "he is a man of character"; but however defined, the moral constitution of the individual is regarded as of supreme importance.

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The making of such character has in the last forty years emerged into public consciousness. Formerly its importance had been implicitly presumed. Recently its importance has become recognized, in educational treatise, discussion, thought. The reason of the emergence lies in the increase of public violence and of lawlessness, which in turn has arisen from the enlarging foreign population, an enlargement made up in no small degree of those who have not received training in the conception and practice of political and social freedom.

Two methods of nourishing the moral character of individual students have come into use or at least recognition. One method is founded on the belief that character is the result of many diverse forces and manifold conditions. Character is, like happiness, never to be made a direct aim of achievement. Such directness and consciousness of purpose would, as in the case of happiness, result in failure. It would create and foster priggish and arrogant puppets. Therefore such means should be employed, methods adopted, and conditions supplied that good character and righteous conduct shall normally and unconsciously eventuate. In securing these results the ordinary

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facilities of the school are regarded as of primary worth. The sciences, for instance, promote moral honesty, as well as intellectual accuracy. The truths of chemistry and physics nurture truthfulness in manhood. The revelation of apparent design seen in nature develops reverence in the heart of the student. The presence of law, the fact of scientific discipline and of teaching, foster the science and art of obedience in the reverent learner. The ethical teachings of the sciences are constant and potent. Lessons quite as impressive, even if not so constant, are found in all literary and humanistic studies. English literature is fraught with moral lessons of the utmost worth. No literature is so clean, so inspiring to the pure soul, so quickening to virtue as the English. Wordsworth has gained a place not given to Byron, not simply because of his greater intellectual affluence, but also because of his purer moral consciousness and expression. History, as well as literature, conveys the same lessons, for the teaching of history, as given in the schools, more easily lends itself to moral than to political impressiveness. Heroes are not simply brave men, they are also good. Such examples stir the heart of youth to the highest achievement.

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Similar lessons are conveyed by the reading of Latin and Greek literature. A teacher speaks of the moral worthiness that may be conveyed, for instance, through the Catiline of Sallust or through the Iliad or the Odyssey. One teacher says that Sallust's Catiline "is almost a moral treatise. It deals with such subjects as the powers of man and their proper use, the noble character of the early Romans, the introduction of luxury and vice into Rome, the causes of Roman greatness, and the character of Cæsar and Cato in comparison, the character of Catiline and his associates, and the great conspiracy. The introduction affords opportunity for moral instruction upon its every line, the main part of the work upon every page."¹ Moral lessons are constantly found. Among them are such topics as: "exertion necessary for development; mind godlike, everlasting; character dependent upon the active virtues, *labore, continentia, æquitate*; Sallust's stress upon the activity of the mental powers and the subordination of the physical, which makes a deep impression upon pupils; the powerful constructive force Catiline

¹ *Proceedings of Religious Education Association*, vol. iii, p. 227.

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could have been, had his tendencies been in the right direction; generous treatment of friends; respect for age and experience; valor and glory the ideal; how individuals and consequently states retrograde; contrast in methods of securing ends; causes of corruption of army; evils of luxurious living.”¹ Similarly moral teaching is derived from Homer. “The Greeks regarded the Homeric writings as a great religious book, and looked upon them as authority in argument and practice. Some modern writers join Homer with the Bible and Shakespeare as the great expounders of life. I claim with my pupils that all the drudgery of the study of Greek is richly rewarded in the reading of Homer’s Iliad. From what has been said it is evident how this story of life can be employed by the teacher to have a favorable effect upon moral character.”¹

By means of the content of these studies, literary, humanistic, scientific, great moral lessons are pressed home upon the mind and the heart of the individual student. Their worth is not lessened by reason of the indirectness and unconsciousness of the teaching. The moral at-

¹ *Proceedings of Religious Education Association*, vol. iii, pp. 227-229.

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mosphere pervades the instruction or content of the lesson. The atmosphere is as present and as potent and as quiet in its influence as it is in a good home.

It has also become recognized that the moral worth of the discipline of the school is great. The school is a moral process as well as an intellectual one, in which the example and character of the teachers are of primary consequence. The teacher's personality is the essential element in moral education. His virtues and his graces, hidden or open, the pupil is able to estimate at their true worth. His reverence, no less than his self-respect, are vitally potent in the schoolroom. His selfishness or his self-sacrifice, his largeness or his meanness, his narrowness or his truthfulness convey moral lessons.

The school itself, too, gives the idea of social conditions, — unselfishness, coöperation, union are here embodied. The school offers an example of group work. It represents a "team." It teaches loyalty and service. It embodies the lesson of one working for all, as well as of all working for each. It is a school city; it represents democracy more than a kingdom. It is, in its own being, an organization,

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and an effective training for citizenship. The civilization of one's own time is also impressed through the school. The school is only one of many institutions — homes for orphans, hospitals, societies for prevention of cruelty to fellow-children or animals, agencies for social service — representing forms of contemporary life, which help forward the higher moral interests of the community. The school is a simple ethical microcosm.

A teacher whose life is known to be immoral would not be suffered to remain in his place a single day. The character of most teachers is an inspiration to right living. The example of their life is more potent than the significance of the precepts of the lips or of the text-book. Orderliness, punctuality, frugality, conscientiousness, thoroughness, persistence, represent elements in the life of the schoolroom which are of primary worth in the life and the character of the people. They embody foundations and forces, constantly acting, which penetrate into and form the springs of being.

It is as true in the lower as it is in the higher education, as President Hadley says, that, "speaking broadly, we disbelieve in the idea that moral and religious instruction should be

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separated from other instruction. We regard any good course in law or in ethics, in history or in literature, as having good moral and religious effects; but we should hesitate to draw up a scheme that should separate those courses which were distinctly moral and religious from those which were not.”¹

The practical worth of the training given in the public schools, through the indirect and unconscious processes and methods, receives illustration in a report made by the late secretary of the board of education of Massachusetts. Dr. Martin says:—

It occurred to me to inquire whether the pupils in our schools, without formal instruction, having learned no precepts, had from the informal, occasional teaching in the schools, from their own thinking and under the influence of their homes, acquired any conception of moral obligations which they could express in words if occasion arose for them to do so. Accordingly, I asked the principals of several grammar schools to obtain for me papers, from the members of their highest class, written impromptu on the topics: Our duties to our families; Our duties to our city;—half of the class writing upon each. This was done, and they were sent to me.

¹ “The Bible in Practical Life,” quoted in *Proceedings of Second Convention of the Religious Education Association*, p. 87.

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The papers treating of the family affirm moral obligations not only in a broad way, but in specific applications of general principles. They specify obedience to parents, — honor and respect for parents; respect for the older brothers and sisters; care, guidance, and example for the younger ones. They, without exception, declare the duty of helpful service for all the members of the family, and they specify a great variety of ways in which that service may be rendered. They speak of present obligations, but many of them speak of their duty to assist as becoming later a duty to support when their parents are old. The papers from one school dwelt with special emphasis upon the duty to be cheerful in the home, to carry sunshine, and to be kind in speech. These papers are not cold statements of obligation. They are warm with filial regard and love. They dwell at length upon the love of their parents for them, the sacrifices in their behalf in their infancy and later life, and they see their own obligations in the nature of recognition and return for what they have received.

The other papers, treating of civic duties, deal with the subject in a similar way. The children dwell at length upon what the city has done for them in its protection and care. They would, by their orderly conduct on the street, by their scrupulous care of public property, by their efforts to keep the streets and sidewalks clean, and their own

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home premises neat, try to show their appreciation of what they have received. They are proud of their city, and would do nothing to dishonor it. They would speak well of it. They think that when the time comes they should vote, and vote for good men, and should meet their share of the public expense. Such, in brief, is the result of my experiment. It satisfied me that our American children, in the process of being educated in the schools, said by some to be devoid of moral instruction, schools affirmed by some to be breeding places for unmoral or immoral character, are acquiring ideas of moral obligation sufficient, if put into practice in daily living, to make them safe, useful, and honorable members of society. We have no right to ask for more, and I have never seen any scheme of formal instruction which seemed to me likely to accomplish so much.¹

In the last forty years, therefore, there has been an increasing belief in the effectiveness of the unconscious and indirect methods of moral training. But also there has been a still larger growth in the belief that with such unconsciousness and indirection might be united a certain amount of formal instruction in practical morals. This belief has been helped forward, to a certain extent, by the experience

¹ *Proceedings of the Third Convention of the Religious Education Association*, pp. 80, 81.

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of countries as remote as Germany and Japan. Near the beginning of the ninth decade of the last century, Bismarck came to realize that Germany was suffering from the evil name under which her manufacturers and merchants labored for dishonesty and trickery. He put forth a manifesto which had much influence in removing the condition. As a result moral and religious instruction in the schools of Germany has, I think, never been more intense than in the last score of years. The rescript, too, which the Japanese Emperor published in the year 1890 has had a similar influence. Japan has taught morals with a comprehensiveness and an impressiveness perhaps unequaled in the history of education. If German and American methods have helped to make Japanese education what it is, Japanese education is, in turn, having influence upon American educational conditions. The rescript of 1890 of the Japanese Emperor represents what many Americans desire to accomplish through formal instruction. In that rescript it is said, "You, therefore, our subjects, be filial to your parents; be affectionate to your brothers; be harmonious as husbands and wives, and faithful to your friends; conduct yourselves with

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propriety and carefulness; extend generosity and benevolence towards your neighbors; attend to your studies and practice your respective callings; cultivate your intellects and elevate your morals; advance public benefits and promote the social welfare; ever render strict obedience to the constitution and to all the laws of the land; display your personal courage and public spirit for the sake of the country whenever required.”¹

An American educator has drawn out in detail some of the elements which should go to make up formal teaching in practical morals. President G. Stanley Hall says: —

First should come health as wholeness or holiness of body, comprising plain, personal, homely talks, with perhaps sometimes brief papers and discussions by the class on diet, regimen, individual hygiene, sleep, body-keeping generally. Here the intense zest for athletics should be tapped or turned on as a motive power. Temperance comes here. There should be a little sane and scientific teaching about alcoholism, the ideals of the simple life versus luxury, regularity, dress, and this part of the course should culminate in a few very plain medical talks to boys alone about purity, sexual regimen, and heredity.

¹ *Indian Education*, “Educational System of Japan,” p. 441.

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Then should come something about the life of feeling, especially anger, its place, the kinds of temper, and their vents, control, patience, with snatches of the new psychology in this field. So, too, the very delicate topic of love has aspects where wise instruction by hints and rapid suggestion can do much. . . . Friendship is a helpful and related theme, and its lofty ideals in antiquity and modern instances can be adduced, showing its qualities and influences, and what companionship, cliques, and even gangs and other forms of youthful association can do. Even sympathy with animals should not be omitted. So fear and cowardice, true courage, moral and physical, the Aristotelian fearing aright as the consummation of human wisdom, envy, jealousy, revenge, etc., should not be omitted.¹

Such a method of moral education is adopted in many schools. In the schools of the city of New York, for instance, is supplied a list of books as material for practical lessons in morals and manners: "(a) Duties to parents, brothers, sisters, and playmates; to servants and other employees; to employers and all in authority; to the aged, the poor and unfortunate. (b) Conduct at home, at the table, at school, on the street, in public assemblies, and in

¹ *Third Report of the Religious Education Association*, pp. 220-221.

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The common virtues,
morality, self-control,
order, industry, temperance, hon-
esty, economy, industry, and

... and important method
... as well as through the
... remain princi-
... These principles are
... statement made to the
... schools of New York:—

... moral training, development
... to practice and inter-
... he proceeds from
... from principle, from
... to obedience to principle, from
... to altness. The child also develops
... altruism. His impulse to
... develops earlier than his im-
... in another's place. Upon the
... of the former stage depends the
... of the latter. The virtue
... is a powerful aid in moral inst-
... the power vividly to picture con-
... put yourself in your own place late
... secondly, as the power to "put
... his place" social imagination, sympathy

*Proceedings of the Second Conference of the Na-
tional Association, p. 321*

...

...

...

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public conveyances. (c) The common virtues, such as regularity, punctuality, self-control, cheerfulness, neatness, purity, temperance, honesty, truthfulness, obedience, industry, and patriotism.”¹

Through this direct and important method of moral instruction, as well as through the indirect and the unconscious, certain principles are to be observed. These principles are well enunciated in a statement made to the teachers of the public schools of New York: —

(a) The course of moral training is a development, in which the child is first led to practice and afterward to work from principle; he proceeds from obedience on faith to obedience on principle; from regularity to faithfulness. The child also develops from egoism to altruism. His impulse toward self-interest normally develops earlier than his impulse to put himself in another's place. Upon the full development of the former stage depends the full development of the latter. (b) The culture of the imagination is a powerful aid in moral instruction; first, as the power vividly to picture consequences — to put yourself in your own place later on (fore-sight); secondly, as the power to “put yourself in his place” (social imagination, sympathy). (c) In

¹ *Proceedings of the Second Convention of the Religious Education Association*, p. 321.

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using literature and similar material for purposes of moral education, the teacher should not violate the law of self-activity. The child properly resents having¹ a moral drawn for him which he could draw for himself, and he is the more likely to follow the principle which he himself discovers or formulates because it is his own. (d) The most effective method in moral education is positive rather than negative. A mind filled with good interests, high ideals, and helpful activities has no room for evil. Love is a stronger and better motive than fear.¹

The generation is inclined, in its school instruction, as well as in public interpretation, to find a basis for moral conduct and belief outside of the sanctions of religion. The position of the Roman Catholic Church that morality and religion are inseparable has not been generally followed in the public schools or colleges. The schools have been inclined to divorce themselves from all religious teaching in the fear that if religion were taught at all, it would take on sectarian relationships. But the people have usually held to the reading of the Bible in the sessions of the schools and to the repeating of the Lord's Prayer in

¹ *Proceedings of the Second Convention of the Religious Education Association*, p. 321.

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concert. Religious instruction has usually been limited to this extent and to this extent it has been and still is followed. Reports made from all states, with a few exceptions, are similar to that made by Delaware, for instance, that Bible-reading at the opening of the school is well-nigh or altogether universal, or to that coming from Virginia, that the Bible is read in nearly all the schools, — and this has been the custom since their organization, or to that of Maine, that the opening exercises in most of the schools consist in the reading of a passage of Scripture by the teacher and repeating the Lord's Prayer by the teacher and pupils. But in Louisiana, California, Utah, and Washington, through the constitutions of these respective states, the reading of the Bible in public schools is prohibited. Perhaps the usual rule is summed up in a statute in North Dakota which declares that "the Bible shall not be deemed a sectarian book. It shall not be excluded from any public school. It may, at the option of the teacher, be read in the school without sectarian comment, not to exceed ten minutes daily. No pupil shall be required to read it or be present in the school-room during the reading thereof contrary to

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the wishes of his parents, guardian, or other person having him in charge."

The American people still believe, as a body, that instruction in religion, so far as it is embodied in the reading of the Bible and in the Lord's Prayer, may properly be made a part of the order of the public school instruction. But at this point they are still inclined to stop. They are unwilling for teachers to attempt to offer instruction in specific religious doctrines. The real difficulty of giving such instruction, which the teacher encounters, is that such instruction is prone to take on sectarian relationships. Such general teaching is in danger of becoming formal, or of representing a type of deism which is, on the whole, abhorrent to the better sense of many, perhaps most, people. But it has not come to be regarded that the reading of the Bible or the saying of the Lord's Prayer, if conducted in reverence, could have other than a good influence.

Yet, despite these methods, it is apparent that the knowledge of the facts and truths of the Bible has, in the last half-century, diminished. The ignorance of the Bible among schoolchildren and among all the people is a somewhat depressing condition of our time.

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Several years ago I set for the members of a freshman class an examination paper composed of examples from Tennyson's poems which contained Biblical allusions. Among them were these and such as these: —

My sin was as a thorn
Among the thorns that girt my brow.
As manna in my wilderness.
Joshua's moon in Ajalon.
A heart as rough as Esau's hand.
Gash thyself, priest, and honour thy brute Baal.
Ruth among the fields of corn.
Pharaoh's darkness.

A Jonah's gourd,
Up in one night.
Stiff as Lot's wife.
Arimathea Joseph.
For I have flung thee pearls and find thee swine.

Of the Biblical allusions in these and similar passages these men showed an alarming ignorance. Nine failed to understand the quotation, —

My sin was as a thorn,
Among the thorns that girt my brow.

Eleven failed to apprehend the "manna in my wilderness." Sixteen were likewise ignorant of the significance of Moses' striking the rock.

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Sixteen, also, knew nothing about the wrestling of Jacob and the angel. No fewer than thirty-two had never heard of the shadow turning back on the dial for Hezekiah's lengthening life. Twenty-six, even, were ignorant of Joshua's moon. Nineteen failed to recognize the peculiar condition of Esau's hand. Twenty-two were unable to explain the allusion to Baal. Nineteen apparently had never read the idyl of Ruth and Boaz. Eighteen failed to indicate the meaning of Pharaoh's darkness. Twenty-eight were laid low by the question about Jonah's gourd. Nine, and nine only, had knowledge enough to explain the allusion to Lot's wife. Twenty-three did not understand who "Arimathea Joseph" was. Twenty-two, also, had not read the words of Christ sufficiently to explain "For I have flung thee pearls and find thee swine." Twenty-four had apparently not so read the account of Christ's first miracle as to be able to explain a reference to it. Eleven did not understand the mark which Cain bore. Twenty-five were as ignorant as heathen of the foundations of the church of Peter. Twelve, and twelve only, had gathered up knowledge sufficient to indicate certain truths about the serpent in Eden. No

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fewer than twenty-seven were paralyzed by the allusion, "a whole Peter's sheet." Twenty-four were unable to write anything as to Jephtha's vow. Eleven only, however, were struck dumb by the allusion to Jacob's ladder. Only sixteen were able to write a proper explanation of "the deathless Angel seated in the vacant tomb." In a word, to each of these thirty-four men twenty-two questions were put, which would demand seven hundred and forty-eight answers. The record shows that out of a possible seven hundred and forty-eight correct answers, only three hundred and twenty-eight were given.

The simple fact is that the Bible has ceased to be a book well known among the American people. Over the Puritans of the time of Cromwell who came to New England and their immediate descendants, the Bible had a dominating influence. Its history, its poetry, its philosophy as well as its theology, helped to form individual character and modify the development of nations. At the present time its heroes are less familiar than Norse or Greek gods; its poetry is not appreciated and the significance of its ethical teachings is lost in the great body of all moral literature. Allusions

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to Alice in Wonderland are far more generally appreciated.

The exact and formal religious influence of the Bible has doubtless diminished in this half-century; but the general spirit of the Bible has, without doubt, come to pervade with greater fullness the character, and to guide the life, of the people. A similar change has occurred in respect to the church as embodying formal Christianity and the spirit of Christianity itself. The formal, institutional Christianity has doubtless lost in prestige, but the spirit, the essence of Christianity, has gained in influence and efficiency. The facts of the Bible may be less known, but its spirit is more puissant.

In one respect, however, the books of the Bible as standing for religion have come to have a deeper foothold. Fifty years ago the colleges were not offering instruction in the Hebrew or Greek Scriptures. To-day most colleges are offering such courses. These courses are sometimes given in a distinct department known as Biblical. In other colleges these courses are distributed among the departments of history, of philosophy or of psychology, or of language. In not a few colleges the New

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Testament is taught as a part of the instruction offered by the professor of Greek. But under diverse methods the Bible has come to hold an important place in the college curriculum. It is as true in the good school as it is in the university, that, as John Stuart Mill said in his great rectorial address given at St. Andrew's, "the moral or religious influence which a university can exercise, consists less in any express teaching, than in the pervading tone of the place. Whatever it teaches, it should teach as penetrated by a sense of duty; it should present all knowledge as chiefly a means to worthiness of life, given for the double purpose of making each of us practically useful to our fellow-creatures, and of elevating the character of the species itself — exalting and dignifying our nature. There is nothing which spreads more contagiously from teacher to pupil than elevation of sentiment; often and often have students caught from the lifting influence of a professor, a contempt for mean and selfish objects, and a noble ambition to leave the world better than they found it, which they have carried with them throughout life."¹

¹ *Rectorial Addresses, University of St. Andrew's*, p. 64.

CHAPTER X

THE ATHLETIC RENAISSANCE

THE period may fittingly be called the athletic Renaissance. In the United States about three hundred colleges and universities have established, within the last generation, gymnasiums, and more than one hundred are giving regular training in gymnastics; more than three hundred cities have introduced some form of physical exercise into the public schools, and over one hundred of them employ special teachers. The Young Men's Christian Associations throughout the country, to the number of more than five hundred, have founded gymnasiums with more than three hundred teachers. These gymnasiums enroll about one hundred thousand members. Athletic clubs have within forty years been established in more than one hundred towns, and many of them are equipped with gymnasiums and club rooms. Churches, hospitals, sanitariums and many other institutions more or less public also contain gymna-

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siums, and each of them has a membership running from a few score into hundreds.

The increasing interest of all the people in gymnastic exercises and physical sports is evidenced in such institutions; and in turn these institutions enlarge and deepen the public interest itself. American life assembles no such large multitude as do the football games of every autumn, and no gatherings are so large from day to day, from week to week, and from month to month as are found in the grand-stand of the baseball games played in the great cities.

These exercises take on two forms: athletic sports, and gymnastic instruction or practice. These two forms are, however, closely related. The causes of this new or renewed attention to sports and exercises in the training of the boy or the man, of the girl or the woman, are manifold.

The deeper love for nature has undoubtedly contributed to the result. Man has, in all historic ages, approached nature by diverse methods and under diverse moods. Perhaps in his first approach to her she was regarded as an object of fear. This fear gave way presently to a reverence for nature as an object

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of beauty. Within recent times nature has come to be interpreted as an embodiment of forces to be utilized for man's services or happiness. With the increase of the utilization of nature's forces has gone along a deepened respect for nature as a power making for health. These elements have prepared the way for the growth of those sports which are played out of doors.

This growth has been contemporaneous with the passing of the simple life. Living has become complex and elaborate. The whole globe ministers to the service of the individual, his housing, eating, drinking, clothing. Each man, however remote his relations, however secluded his personality, is a citizen of the world. Elaborate and complex living is in peril of being artificial. Artificial living is exhaustive of the personal resources of the individual. Some method of restoration and of preservation is necessary. The most natural life lies in physical sports and training. They represent recreations and they also represent simplicity.

Quite akin to the increase in the complexity of modern life is the growth in the urban population. At the present time about one half of the entire population of the United States

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is found in cities of at least eight thousand. This increase has been great and constant for one hundred years. The strain upon the nervous constitution and organization of the individual is greater in the urban than in the rural community. The presence of competitive tendencies, — professional, social, is heavier. The necessity of constant and hard work is more binding. Nervous collapses are more common and premature break-downs come earlier. In this condition men turn to the athletic clubs, gymnastics, and to sports for relief. A golf club takes the place of the axe and the baseball bat that of the hoe and the shovel.

The influx of the German people to this country has helped to produce this result. The Germans are out-of-door people. Beck, Follen, and Lieber, among the first scholarly Germans who came to America, stood in the earlier years of their American life rather for athletic and gymnastic sports than for scholarship. The decline, too, of the traditional enmity against Great Britain has produced a similar effect. The English sports of tennis, golf, and football have been introduced with English voices and English clothes.

I am also inclined to believe that the influ-

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ence of the Civil War contributed to the athletic movement. The soldier lived out of doors. His tactical exercises were not unlike those of the gymnasium. His physical training was seen to be good as an effect, as well as a cause and as a condition. The value of a strong body was enhanced in public opinion. In the course of the Civil War the full beard became popular with the civilian in his sympathy with the unshaved soldier. So, after the war, as out-door life controlled, physical exercises became the object of imitation.¹

In securing the same end the rise of the biological sciences has made a contribution. Physiology has helped to give a clearer notion of the relation of the human body to physical exer-

¹ "I was talking of this difficulty [the sudden decline of estimate put on debating in 1860] with General Francis Walker, a man who, first as a student of Amherst College, then as an adjutant general in the Civil War, and afterwards as superintendent of the census, professor of political economy, and president of the Institute of Technology, had the opportunity of viewing this question from more sides than most men. He replied, 'The answer is simple. When the nation had to go to war for its very existence, and when our college graduates had the opportunity to serve their country in places of prominence at the peril of their lives, the debaters stayed at home and left the athletes to go to the front. This is why, ever since, the country has liked athletes better than debaters.'" (From address of Pres. A. T. Hadley at Harvard University, 1908, Report in *Harvard Bulletin*.)

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cises, and has aided in the understanding of the hygienic value of pleasant sport, or of fun. Zoölogy has served in the better interpretation of physical faculty and function. The science of biology in its several branches has helped us to know and to practice the art of health.

Credit in this great movement should be given to several personalities who have proved to be of great influence. Among them three are to be named, Dr. Dio Lewis, Professor Edward J. Hitchcock of Amherst College, and Dr. Dudley A. Sargent of Harvard.

Dr. Dio[cletian] Lewis may be described as a gymnastic revivalist. He lacked scientific knowledge; he was neither a scholar nor a philosopher. In the decade beginning with 1861 he served as an agitator of many liberal movements, social, civil, therapeutical, as well as gymnastic. By nature he was unconventional, self-sufficient, and oratorical. He was popular as a lecturer before teachers' associations and educational audiences of all sorts. Many of his schemes were impracticable, although his establishment of the Boston Normal Institute of Physical Education in 1861 represented an important contribution to the cause of physical education; but his enthusiasm and

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general emotionalism served to bring before the mind and the heart of the American people the importance of physical education.

The work of Professor Hitchcock of Amherst College was of quite a different sort. It was scientific, and it was also born of enthusiasm. Dr. Hitchcock was appointed professor in the department of physical training in 1861, and for more than two score years endeavored to put the cause of physical education upon a proper basis. Not only his scientific knowledge, but his skill, patience, and tact succeeded in making this work in Amherst College valuable, not only for the students of that college, but also valuable as an example and inspiration to the faculties of all other colleges.

Throughout this period it is probable that to Dr. Dudley A. Sargent of Harvard College belongs greatest credit for the whole gymnastic revival. The principles which lie behind his work are physiologically sound. The apparatus which he has constructed has come into general use. His forms of measurements and his tests have been recognized as standards. The wisdom of his administration has helped forward the organization of physical education; and his instruction has proved to be a not

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unworthy part of a system of liberal studies. Through the students of his professional school his system has gone forth into college gymnasiums and athletic clubs of the whole country.

These forces, therefore, numerous and diverse, personal, administrative, civil, form the comprehensive cause of the whole athletic and gymnastic movement of the last forty years.

The exercises of the gymnasium and the sports of the athletic field are at once alike and unlike. They are alike in the promotion of health and the increase of physical strength. The recreative purpose is common. They are also alike in the forces used, the body and the mind; and further they are alike in the necessity of obedience to hygienic laws. But they are unlike in the fact that most athletic sports represent more of fun than do gymnastic exercises; and are, therefore, a higher cause of rivalry. They are contests often of strength, of skill, and of training. They are more replete, moreover, in excitement to participant and to spectator. It might be said that athletics are work for the sake of pleasure, gymnastics are pleasure for the sake of increased power for work. Gymnastics are more elaborate and formal, and the element of discipline prevails

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more largely. The tendency of sports is to become more scientific and to take on elements of labor and of business relationships. The tendency of athletics represents rather the emotions, and gymnastics the simple will. Athletics, too, are a more impressive exponent of school and college loyalty. As Professor Briggs of Harvard has said, football as played in America to-day between schools and colleges is not a mere game; still less is it a mere exhibition of hard-trained strength and skill. It is to the typical undergraduate mind the supreme expression of college loyalty; and everything that touches it becomes a question of allegiance to an Alma Mater.¹ What Professor Briggs says about football might also be said of other sports, as baseball and tennis.

The simple fact is that a truer conception of the nature of physical exercise in education has come to prevail. As Professor Sargent says, when it shall be generally known that the object of muscular exertions is not to develop muscle only, but to increase the functional capacity of the organs of respiration, circulation, and nutrition; not to gain in physical endurance merely, but to augment

¹ *Harvard Bulletin*, Nov. 4, 1908.

the working power of the brain; not bodily health and beauty alone, but up the morbid mental tendencies, to d gloomy shadows of despondency, an sure serenity of spirit; when men sha have learned that much of the ill-temper malevolence, and uncharitableness which society arises from feeble health, and t great mental and moral disturbances sometimes threaten the stability of a g ment may be traced to physical causes. will the training of the body rival in d and importance the training of the mind, for the interests of mind and body will be recognized as inseparable.¹

Several forms of gymnastics have been introduced into American schools and colleges. It is significant that they are rather importations than native growths.

The German method was the first in time. It aimed at general culture. It has not sought for the discipline of any one faculty of the body. It has emphasized the elements of exercise in groups. All the members of the groups are selected upon common ground. The instruction has been progressive, beginning with

¹ *Physical Education*, pp. 118-119.

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and easy movements and proceeding gradually to those hard and complex.

Second system to be introduced has been known as the Swedish-German. The great aim of this system is the development of the body by means of certain well-defined exercises. These exercises are carefully selected in view to the needs of the individual condition.

Special pains under this system is taken for the strengthening of the individual. The group is subordinated to the individual. Special emphasis in the process has been laid upon exercise without machinery or apparatus.

The third method of physical education bears the name of Delsarte. The Delsarte system is perhaps not so much a system of physical exercise as it is the training of the whole individual. As an interpreter has said, "The Delsarte system is a careful analysis of the facts of human nature and experience, generalized into laws which dominate those facts and applied in a system of practical rules for the perfecting of the human instrument physically and spiritually, so that our experience may be raised to the highest possible degree of variety, fullness, and harmony."

The Delsarte system has not secured in

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American schools and colleges the common adoption which at various times has belonged to the Swedish or the German system. It has been especially popular, however, in private schools.

As has been intimated, the system of physical exercise bearing the name of Dr. Sargent has been most efficient. This system unites certain principles of the German method with those of the Swedish, and it includes truths which lie in Delsarte's method. The strength-giving qualities of the German, the beauty of French calisthenics, the poise and mechanical precision of the Swedish system, it is sought to unite in Sargent's method. A chief principle which this method represents is that in physical exercise the qualities at first required are the qualities which are finally developed. If exercise requires strength or skill or courage, — strength, skill, courage will be the final results. The interest of the person taking the exercise is regarded as sufficient to oblige him to give it his attention. Exercise is to be performed with sufficient vigor to cause the contraction of the muscles employed. Weak parts are first strengthened, and afterwards as many muscles as possible

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are brought into action to secure harmonious development. The exercise it is designed to make so general that the heart and the lungs receive proper stimulus.

It has in the course of these forty years come to be recognized that the well-equipped gynnasium is as necessary in the administration of a college as a well-equipped laboratory of chemistry. Instruction is given in these gymnasiums, in the case of the larger colleges, by several teachers. In most institutions, although not in all, attendance at these exercises is required. The results which have thus been secured have made vastly for the strength and the health of the American college student. The physical health and strength has also promoted clean moral living. The typical student of the earlier decades of the century, sallow, hollow-chested, dyspeptic, has passed away. Statistics bear out the general impression of the improvement of the health of the American college student. In careful records kept in Harvard College from the year 1887 to 1897 it was noticed that there was a general increase in the strength tests of the incoming classes. "In 1880 the medium or average strength of the 579 men examined from all the classes then

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in college was 400 points. The average for the 689 men examined in 1896, . . . the same period as covered by the examination of 1880, was 625 points.”¹

The development of athletic sports, however, has been possibly as great as and certainly more impressive than the growth of the physical side of gymnastic exercises. The most popular outdoor sports are foot-ball, base-ball, tennis, hockey, and, if opportunity allow, rowing. These sports and many others, such as track athletics, have become formally established. Athletic sports apart from the gymnasium are a recognized part of the American school and college. The value of these sports has also come to be generally recognized. These advantages are not only physical, but also mental and moral. Increasing health has promoted increase in mental work, and regularity in training has promoted regularity in moral conduct. The athlete who has undertaken training is bound by college tradition to work hard and regularly, to abstain from all dissipation and to observe hygienic laws. Many and varied are the advantages of athletics. “They have afforded our school and college

¹ *The American Physical Education Review*, 1897, p. 116.

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youth a subject of immediate interest to discuss, rally round, and enthuse over. They have taught them to respect deeds rather than promises, to be governed by laws rather than by haphazard opinions, to submit to discipline, set selfish interests aside, and render obedience to their captains and leaders. Athletics have advanced the tone of youthful morals by setting higher ideals of manhood for the weak, giving a legitimate outlet for the superfluous energy of the strong, and furnishing a fair field of activity for the courageous and daring. The achievements of individual athletes, clubs, teams and associations have provided live topics for written composition, and have probably afforded a better drill in the writing of good idiomatic English than any other class of subjects. The interest aroused by athletics has in my opinion also contributed in no small degree to the enrichment of the college curriculum, by obliging instructors to make their courses more interesting and attractive in order to command attention. The management of athletics, and the handling of men under trying conditions and circumstances have afforded an admirable training in executive ability, and some of our foremost young men in business

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and government affairs got their first experience that way. Inasmuch as a large per cent. of all our college graduates now go into business, . . . the experience is a matter of no little importance. Athletics undoubtedly have furnished a great incentive to a large number of youth to take vigorous exercise, and to work with definite ends in view. The extensive practice of these invigorating . . . methods of living have contributed in a measure to the improvement of the general health of the community.”¹

Athletic sports have, however, been recognized as subject to many objections. These sports are usually carried on in the American college at a very large cost in money, and as they eventuate in inter-collegiate contests they are open to the charge of great publicity. At Harvard College, in the year 1903-04, expenses for all sports were \$61,338.55, in 1904-05 they increased to \$63,000, for 1905-06 they amounted to \$76,690.89, and in 1906-07 they were \$71,000. It is, however, to be said that the receipts in these four years were 40% larger than the expenses. They were as follows: —

1903-04	1904-05	1905-06	1906-07
\$110,845.13	\$108,071.62	\$125,233.71	\$106,125.10

¹ *American Physical Education Review*, March, 1900, pp. 9, 10.

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Among other objections which are urged to athletic sports is the belief that attention paid to them interferes with the attention of college men to their scholastic work. Interest in the great end of college work suffers. In a report made to the faculty of Harvard College by a special committee in the year 1888, it is said: —

It might be urged *a priori* that the discipline, the regularity of life, and the perseverance required of successful contestants in athletic sports, would tend to make athletes more efficient men; and there have been numerous cases in which athletic men have been high scholars. Your committee have obtained positive evidence on this point, and they are themselves surprised at the conclusiveness of the proof that, except in the freshman year, study is not interfered with by athletics. . . . The use of the library — a fair test of intellectual activity — has constantly increased. It seems demonstrated beyond a doubt that participation in athletics lowers neither the standing of those who take part (except freshmen) nor the general standing of the college.¹

It has also been said in criticism of athletic sports that they have “a bad moral effect upon participants and spectators; that severe train-

¹ *Harvard College Report upon Athletics*, 1888, pp. 22-23.

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ing is followed by dissipation; that tricky and even dishonest play is permitted; that ungentlemanly behavior and dispute are common on the field; and that in some cases men are attracted to a college by the hope of direct or indirect pecuniary advantages from their skill in athletics."

In the opinion of many the prominence now given to athletics by the press and public, the praise and adulation bestowed upon individual athletes by schools and colleges, the commendation of friends, the worship of comrades, the celebrations and the banquets are having a demoralizing influence upon a large class of our youthful population. A young man whose good work in the class room never attracted attention, whose social charms and accomplishments never brought him into notice, suddenly finds himself raised to distinction by an athletic victory. He feels for the first time in his life his own importance, and with this sense of importance comes an increasing appreciation of the method by which he has risen. . . . It is claimed that athletic contests not only fascinate the participants but allure hundreds of non-athletic young men from their studies; and thus interfere with the serious intellectual work of the schools and colleges. The protestations of the instructors are of no avail, for on the subject of sports the whole country seems to

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be against them. Moreover many teachers have felt obliged to ally themselves with this athletic movement in order to have any influence over their pupils. Its power in politics in and out of college has long been manifest, every alumni dinner is overburdened with the athletic menu and hardly a college president has been appointed for the past twenty years who has not been known to favor this popular subject. The value of athletics has so impressed itself upon the mental constitution of the young men of the present day, that it is a question if those who oppose them do not lose something of their power and influence as authorities in their own special subjects.¹

These considerations do represent the facts to a certain extent, but not to the extent intimated. It is the testimony of hundreds of foot-ball players, for instance, that the game is a moral tonic. It stands for the cardinal virtues of obedience, justice, and temperance. "Tricky play" represents methods that are obsolescent. The foot-ball man represents the gentleman and not the rowdy in one important respect — that he is obliged to keep his temper. The pecuniary element in playing has been at least in part eliminated by the prohi-

¹ *The American Physical Education Review*, March, 1900, pp. 10-11.

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bition against first-year men taking part in intercollegiate sports.

There has come to be a general agreement among teachers and students that despite the great progress already made in physical education the community is upon the edge of still greater advancement. Among the advantages to be promoted and evils to be eliminated are:

First, Gymnastic exercises are to be made interesting. Most students find them stupid and stupefying. For the purpose of increasing their interest some of the elements of games should be introduced. Contests and rivalries should be promoted.

Second, Training should be made more individual. The physical deformities and idiosyncrasies of the students in school and college are marked. Nine tenths of students are more or less abnormal in body. Exercises, therefore, should be made more personal. They should be adjusted to the needs of each student.

Third, So far as possible physical exercises should fall into the normal living conditions of students. For many they now seem remote, out of place. They consume the time and strength without adequate result. Walking,

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for instance, should be so taught that the pupils can get both strength and fun.

Fourth, The range of exercises, therefore, should be larger, the number of games increased. Outdoor games, especially in the winter, should be promoted.

Fifth, The interest of the members of the teaching staff, in both school and college, in physical exercises should be increased. Teachers have not come to recognize the value of the happiness of these exercises. They have come to recognize the value of manual training; they have not come to recognize the value of baseball, foot-ball, hockey, or any outdoor exercise.

Sixth, In this respect, too, both teachers and students do not appreciate the fundamental value of the sound body as one of the most precious assets of life and service. The worth of biography as inculcating this truth is great.

Seventh, The educational authorities who form budgets should be willing to devote larger sums to physical exercise. Such appropriations would naturally follow upon obtaining a clear idea of the value of physical training. Enthusiasm now abounds, intelligence should increase. Increase of intelligence would result in increase of appropriations.

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But above all else to be desired is, as Dr. D. A. Sargent says, the desire for harmony, symmetry, and proportion in physical development. What our American students of to-day should strive for is neither to be victorious athletes, prize gymnasts, or champion strong men — but to have some of the strength of the strong man and some of the endurance and alertness of the athlete, and some of the skill and grace of the gymnast, all combined with the poise and dignity of a gentleman.

CHAPTER XI

MATERIAL EDUCATION

ONE of the most impressive developments of the past generation lies in the introduction of what I call material education. Material education begins with manual training. Manual training has been evolved into industrial education. Industrial education has passed over into certain vocational schools. The series is impressive.

The difference between manual training and industrial training is significant. The differentiation has been well made by Professor Hanus:—

Manual training is a means of general education just as history or chemistry or language is a means of general education. It has materials of its own and a method of its own, and hence the result is a peculiar kind of knowledge and power due to the nature of the subject and the method that it demands. That is to say, each subject of instruction is a means of general education because it supplies a peculiar kind of knowledge and develops a peculiar kind of power. Each of these subjects, there-

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fore, possesses an educational value not shared by other studies. The peculiar educational value of manual training is that it gives a knowledge of our constructive activities and a sympathetic appreciation of them which cannot be gained in any other way; and an incipient power to be useful in them, which similarly cannot be gained in any other way. It is, however, as now carried on, usually much too general to be comparable to industrial training. Manual training abstracts the principles of all trades and teaches them. It ought to make a pupil generally "handy." It is, if properly carried on, an excellent preparation for industrial training. Industrial training goes farther. Besides teaching all the processes of a given trade from the first attack on the raw material to the last touches on the finished product, it teaches the theoretical foundations of that trade. Hence it gives the worker a *technical* knowledge of his trade, and begins the development of skill in the practice of it. It must not be inferred, however, from what has just been said that an industrial school can turn out a journeyman. The skill of the journeyman can be developed fully only in the factory.¹

The history of this great development, bearing the epithets of manual, industrial, voca-

¹ Paul H. Hanus, *Beginnings in Industrial Education and other Educational Discussions*, pp. 25, 26.

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tional, it is easy to trace in its large elements and relations. It would be, indeed, difficult to establish a historical connection between the origin of this modern movement and the manual labor movement which prevailed in many schools and colleges in the fifth and sixth decade of the last century. Yet one cannot avoid having the feeling that the leaders of the later movement recognized and appreciated at once the strength and the weaknesses of the earlier. They recognized the worthiness of the intentions from which the first movement sprang. They knew well that it was necessary for many boys to earn, while they were engaged in learning, if they were ever able to learn at all. They appreciated the value of efficiency, but also they were not blind to the perils of overwork, and they knew that weariness of the body necessarily resulted in brain fag. It is not a little significant that all such schools of the middle of the last century, with one exception, have ceased to be or have abandoned their manual labor methods.

Such failure was inevitable, for the labor which was offered the student had little or no causal relation to the educational process. But the fact of performing manual labor of

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some kind in the educational period awakened the question whether a form of labor could not be discovered, which would prove to be of educational worth. Such a question was pregnant in the minds of two men in the seventh decade of the nineteenth century. The two men to whom such questioning occurred, and who were, above all others, the founders of the modern industrial movement, were Woodward and Runkle.

Calvin Milton Woodward, born in Fitchburg, Massachusetts, in 1837, graduating at Harvard in 1860, became principal of the Brown High School at Newburyport, Massachusetts. His educational career was interrupted by the Civil War, but at its close in 1865 he was made vice-principal of Smith Academy of Washington University, St. Louis. In the last forty years, through his chair of mathematics and applied science, to which he was elected subsequently, and through his organization and directorship of the manual training school as a subordinate department of the University, through writing and speaking he has been a constant and inspiring leader in the cause of industrial education.

Associated with Woodward in this progres-

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...sive movement was John Daniel Runkle.
...Runkle was one of those few and great men
...who took a degree in the Lawrence Scientific
...School in the sixth decade of the last century.
...He early in his career became professor of
mathematics in the Massachusetts Institute
of Technology. While serving in this place, he
became interested in the subject of manual
training.

At the time when both Woodward and Runkle were meditating upon the various sides of the question of a more practical type of education, they found their interest greatly aroused by an exhibit at the Centennial Exhibition at Philadelphia, in the year of 1876. In an exhibit made by the Imperial school of Moscow there was a presentation of the method of tool instruction which was devised eight years before by Victor Della-Vos. These two men found that Della-Vos gave three years of his school to instruction in the use of tools and three years more to actual construction. His interpretation of industrial processes seemed to give a good basis for similar work in secondary schools. Within the next four years following the Philadelphia exhibition schools for manual training and instruction of

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students were opened in Boston and St. Louis. The St. Louis school was the first of its kind in America, and has served as a model as well as an inspiration for other foundations. Among the schools that were presently opened were the Manual Training School of Baltimore in 1885, the Manual Training School of Chicago and a similar one in Toledo in 1884, and in Philadelphia the Central Manual Training School in the following year. From that time forward the movement has gained in force and broadened in scope.

The principle which underlay the Russian movement of Victor Della-Vos was the principle of abstracting from the mechanical process the mechanics of the movement and leaving that part which would train the worker. His purpose was not to create a work, but to create a worker. The principle has prevailed. The object was educational and not occupational. Upon this principle Woodward based his own school, and through it he inspired other leaders to lay a similar foundation. By writing and by speaking and by example as well, in wisdom and without weariness in season and out of season, he has promoted the cause. For twenty years opposed by ad-

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herents of the classical and traditional system, he yet moved forward, strong in his conviction and hopeful of the desired result. Dr. Emerson E. White, for many years a leader in the national councils of public education, declared that Woodward had put a powder magazine beneath the schoolhouse which would blow it to pieces. Dr. W. T. Harris brought the great influence of his public place as Commissioner of Education and the weight of his learning and character to bear against the support of what he regarded as pestiferous heresy. Upon intellectual and administrative grounds Woodward opposed Harris and White and their associates. Finally they were constrained to confess, which they did willingly, that the argument for the industrial movement was superior to their contentions. Opposition presently ceased. The close of the ninth decade of the last century marks the time of the victory of the cause of industrial education. Since the year 1890, when Harris made a great address at the meeting of the National Educational Association in Nashville, and when Woodward answered him in an historical rejoinder, the cause of industrial education has progressed. In the last score

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of years those who were formerly opponents have either ceased their opposition or have become guides and promoters.

The advance of the movement has been accelerated by two causes, one temporary and local and one general. The less important cause lies in the vocational success of the boys who were the first students of the St. Louis Manual Training School. These boys on their graduation seemed to divide themselves into two groups — one group moving directly toward the engineering college, and the other group toward the trades. The subsequent biography of these two groups proved the worth of the training in efficiency and character given in the school. The permanent cause of the progress of the industrial education lies in many elements, each contributing to the comprehensive result.

One cause is found in the passing of education over from the political to the economic basis. This transition, belonging to the general state, belongs no less truly to the educational field. The first concern of a new commonwealth is its political constitution. Its political orderliness and effectiveness are necessary to further development. The arguments

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more commonly adduced one hundred years ago in favor of public education had their origin in the political salvation of the state. These conditions were simply a continuation of the Declaration of Independence and of the Bills of Rights of the new commonwealths. The debates preceding the Civil War were political debates, and the conclusions of that contest settled many political concerns. Since that time the interests of the people have steadily moved away from political and moved toward economic and allied questions of the social sciences. The leadership in education was sympathetic, as educational leadership always is, with the judgments and feelings of the people. As the thought of the people became more devoted to economic concerns education also took on economic relations. Those relations have developed the type of education known as industrial.

A second cause of this rise, and a cause having close relation with the substitution of economic for political interests in the community, lies in the increased emphasis put on the idea of efficiency. The cultivation and development of the powers of the pupil were conspicuous ideas of the earlier methods. These aims

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are still regnant; but force, efficiency, power to do, have also become rallying cries. If the former type was statical, the latter is dynamic. The industrial school is, in the public interpretation, directly affiliated with the idea of efficiency. This general movement of recent years is simply a continuation of a broader movement, reaching back generations. Its affiliations are shown in the passing of alchemy into chemistry and in the making of physics an experimental science. It relates to Watt's invention of the steam engine, to Fulton's applying it to a steamboat, to Stephenson's constructing a locomotive, and to Siemens and Gramme making an electric motor.

The increasing complexity of modern life has also contributed to the result. In the consequent growth of specialization, therefore, the demand has resulted that each man shall be peculiarly prepared to make his unique offering to the comfort and the enlargement of the individual and of the community. In this creation each individual also receives as well as gives his own peculiar contribution. To ensure this result, both as cause and result, industrial training becomes a proper method and means.

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In the passing of individualism, moreover, is found a cause. The communistic idea, in both its good and its bad sense, has risen as a social concept and as a social force. The great man was never so important as he is now, but the ordinary man has not for three hundred years counted for less. The importance of the training of the individual for his work has suffered. The result is that the old apprentice system has quite passed away. The state, therefore, has found itself obliged to take up the question of the most economical and the most effective method of training men for the pursuit of its many and diverse forms of service. Hence has sprung the origin of the whole industrial movement.

The breadth and the swiftness of this movement has been promoted by the general scientific progress. Industrial training without science would have been as impossible as the building of great railroads without the civil engineer, or the carrying on of the cotton factory without the chemist. The physical sciences have given the knowledge, provided the method, and offered the conditions necessary for industrial education. As Professor Woodward has again and again affirmed:—

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In every school which is well conducted there is systematic correlation between different subjects and coöperation between different teachers, so that one branch of study is made to help and illustrate another branch. For example, all the processes of our forging shop, our brazing and soldering shop, are used to illustrate the principles of physics and chemistry. Our geometry, plane and solid, gets uncounted illustrations and applications from "projection," "intersection," and "shadow" drawing. The exercises of the machine shop serve most lucidly to illustrate the principles of physics, friction, movements, the development of heat, electricity, the action of steam, compressed air, etc.¹

It should also be confessed that in the last thirty years the ordinary type of public school has not been regarded as effective. When a method or a force has been long in use the American community is in peril of becoming dissatisfied with it. Its very dominance may contribute to its unpopularity. The contrast in this respect between the American and the English community is wide and deep. The American community desires to change a thing because it has been in use so long; the English desires to retain it simply by reason

¹ C. M. Woodward, *Manual, Industrial, and Technical Education in the United States*.

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of its age. The public school has done a great work for the American state and people, and because it has rendered such rich service the time has come to consider its amendment. Thus reasons the American citizen. As Commissioner Draper has said: —

It is not for a great national association of teachers to dodge or to deny a palpable difficulty in the schools. The fault is no more inside than outside of the schools. It is the product of our political freedom, of our quick temperament and universal ambitions, of our aptness in making and acting upon propositions, of our tendency to do everything at once, of our bad habit of not taking care, and of the toleration and good nature which allow people to try out at the common cost any philosophy that the brightest and wildest imaginations in the world may bring forth. In a way it is creditable to us. We would rather be all that we are than be without the open chance and without the common alertness.¹

A further reason for the rise of the industrial movement lies in the emergence of a new psychological doctrine. This doctrine is nothing less than revolutionary. The discoveries

¹ Andrew S. Draper, Address given at Cleveland meeting of National Education Association, *Addresses and Proceedings*, 1908, p. 78.

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of Broca, Wernicke, and their successors gave the last blow to the old doctrine of mental "faculties," such as "memory," "perception," or "imagination"; and in so doing established a strong presumption against the whole theory of "formal discipline." For how can learning "c-a-t cat" help one to remember "d-o-g dog," when the two performances involve entirely different "paths" in the brain, through entirely different chains of neurones? "We have not Memory, but memories"; and if this is true it is evident that a study whose main function is to "train the memory" may well make place for another which teaches something worth remembering. And so of the other "faculties." By this doctrine which my associate, Professor Aikins, has well outlined, mental power should be trained for specific ends. The creation of general power should not be made the object of educational effort. Therefore, as most men must engage in manual callings or in industrial work, education should have a manual side and an industrial development.

A further cause lies in the enlargement of the materials for physical construction. This enlargement is nothing less than tremendous.

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For thousands of years the chief materials for building have been brick and stone. Down to the year 1851, when the Crystal Palace was built of iron and glass, brick and stone had been the chief resources for permanent construction. Wood had been used, but for construction more temporary. Steel, within the last fifty years, has come to take its place by the side of brick and stone. Steel lends itself, as does stone, to the taste of the artist and the skill of the engineer. In fact, steel demands certain scientific elements in the engineer which brick and stone do not. The steel tower of Eiffel represents an engineering skill greater than that of the Pantheon or the Parthenon. In order to train men, therefore, to make proper use of the enlarged materials of construction, industrial education has become necessary.

But perhaps as strong a cause as any, of the development of the industrial movement in education, is found in the fact of the great number of boys and girls who drop out of school either at the close of the grammar grade period, or in the last years of this period, or in the first years of the high school. The movement of a class through school is like the move-

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ment of an army in retreat. The course is distinguished by its losses. Professor Edward L. Thorndike has shown ¹ that at least one quarter of the white children of our country who enter school stay only long enough to learn to read simple English, to write simple words and to perform simple arithmetical computations. About one third of all who enter an elementary school graduate. Less than one in ten completes a high school course. It has been found that the majority of the young people who drop out of school at the age of fourteen and enter upon their life work have no special preparation, or power, for rendering any service to the community or for promoting their own happiness. Professor Hanus has said:—

Some inquiry was made into this question in Massachusetts two years ago, and it was found that there are probably no less than twenty-five thousand boys and girls between the ages of fourteen and sixteen who are not in school. They are at work in various kinds of juvenile occupations, or they are idle. The boys become elevator boys, errand boys, office boys; they drive a wagon, or do other work in which they learn nothing, in which no de-

¹ Edward L. Thorndike, "The Elimination of Pupils from School," Bureau of Education, *Bulletin* No. 4, 1907, pp. 9-10.

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mand is made on them for the application of what they learned in school; and consequently, by the time they are seventeen, eighteen, twenty, or more years of age they have an earning capacity but little greater than that which they had when they first left school. And a similar fate overtakes the girls. Moreover, the unfortunate education of shifting experience and environment during these years does much to destroy both the substance and the spirit of the education which they received when in school. The result is that at the threshold of citizenship the great majority of these young people are actually more ignorant than they were when they left school. They are sophisticated, to be sure; but they have seldom acquired the characteristics of a substantial manhood and womanhood ; and, as I have just said, economically they are but little more valuable than they were when they began to work. They have not become increasingly valuable "economic units." And the reason, of course, is that in the unskilled pursuits which they have followed it was impossible to acquire the character, knowledge, and skill which would give them an earning capacity proportionate to their years.

A striking illustration of what I am saying was offered by an elevator boy in a Boston building, last spring. This boy said, "Can't you find me a job that would pay me better?" "How old are you?" he was asked. "Twenty-one." "What can

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you do?" "Well, you see, I left school at fifteen; I have drifted about from one thing to another since; recently my father died, and I find it necessary to earn more in order to help myself and my family." Here was a youth twenty-one years of age, with no capacity to do anything that is worth paying more for than the sum paid for the juvenile services that he had been engaged in since he was fifteen years old. This case is probably typical of the great majority of the twenty-five thousand young people in Massachusetts to whom I have referred, and it is only too probable that what is true of Massachusetts is true of other states. The investigation referred to also revealed the fact that a large proportion — the majority — of these children would be in school between the ages of fourteen and sixteen if the school afforded a training that promised increased earning capacity.¹

Such are some of the causes which have contributed to the rise, in the last forty years, of the vast industrial movement in education. The result is one of the greatest transformations in educational history. The mere figures are impressive. In the cities of the United States having four thousand population or over, and having well organized systems of

¹ Paul H. Hanus, *Beginnings of Industrial Education*, pp. 8-10.

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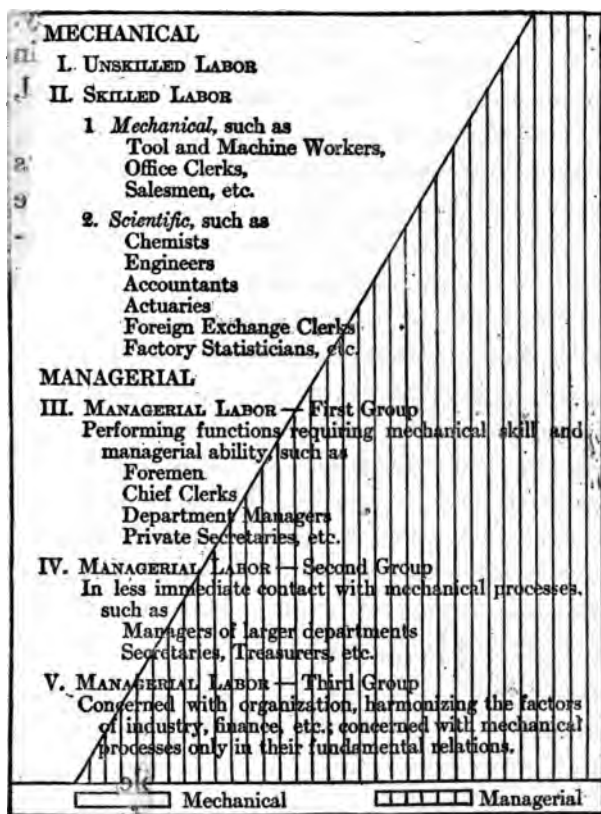
schools, numbering thirteen hundred and twenty-six in the year 1907, manual training was taught in six hundred and forty-four of those systems. Seventeen years before, in 1890, only thirty-seven city school systems included manual training. The increase has been of surprising swiftness. In 1894 the number had increased to ninety-five, in 1896 to one hundred and twenty-one, in 1898 to one hundred and forty-six, in 1900 to one hundred and sixty-nine, in 1901 to two hundred and thirty-two, in 1902 to two hundred and seventy, in 1903 to three hundred and twenty-two, in 1904 to four hundred and eleven, and in 1905 to four hundred and twenty. The increase still continues.

The principle upon which manual and industrial training has been promoted has been the development of the whole man. Through the use of the hands it has been sought to create not only efficiency but character. The general aim of education has not been lost sight of. Through this training the endeavor has been made to discipline the mind to exact and comprehensive thinking, to train the will unto wise choosing, to cultivate the heart unto noble affections, and to develop the whole in-

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dividual unto both enrichment and efficiency. The purpose has been to secure this result in the individual, and through the individual in the whole community.

The methods by which this principle has been applied in the industrial movement have been largely practical and technical. The professional spirit has prevailed. The movement toward the distinct organization of separate schools has augmented in force and enlarged in breadth. Direct training for some specific occupation has become more popular. Industrial education has passed into the occupational or vocational. Industrial efficiency has promoted the withdrawal of students from all schools of general training and the placing them in schools which have a practical and technical or vocational purpose. The separation of schools for general cultivation from technical schools has been made more distinct. This general movement in its relationships is well indicated in the following table, which represents the various kinds of work for which industrial education should prepare: -



This table is taken from Professor Harlow S. Person's *Industrial Education*, p. 45. Regarding it he says: "The upper left-hand triangle represents roughly the field of characteristically mechanical services; the lower right-hand triangle the field of managerial services. As indicated, management is not entirely absent in the upper field and mechanical labor not entirely absent in the lower. Skill in management does not imply the absence of technical skill; the latter is logically a condition precedent. Skill in management implies rather the absence of the exercise of technical functions and not of a knowledge of them.

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The results which have already been achieved through industrial education are significant. The results measured in terms of dollars represent an addition of billions to material property. If one will compare the wages received by the untrained with those received by the trained man, it is made clear that every year of industrial education means an increment in the power of earning. Technical efficiency has been greatly increased.

But what is possibly of far larger value than the pecuniary advantage is the worth of the manual and industrial training in its educational effect on character. The body is developed, muscles are strengthened, eye is trained, and coördination of the body with the intellect, of the intellect with the heart, and of the

Of the classes falling in the middle of the rectangle is required the exercise of both mechanical and managerial skill.

"It must also be observed that not only is there a lower and a higher order of services, judged by the presence or absence of ability for management, but also that in the field of services characteristically mechanical and in the field characteristically managerial, there is a lower and a higher order. The clerk behind the counter, and the accountant in the office, represent different degrees of skill, as do the manager of a department in the department store and the manager of a great corporation.

"To those who have given no thought to the division of labor in a modern industrial state, such a visualized analysis is astonishing. For such readers it will emphasize two points which have been made in this essay, — the complexity of modern industry, and the fact that the young man entering business to-day will be performing so specialized a service that his opportunity for acquiring breadth of view by 'experience,' compared to that of his predecessor, will be extremely limited. It is through skilled labor of the mechanical sort that the majority of young men must advance to the rank of managerial labor, and the outlook afforded in the earlier positions is narrow. The young man cannot start with too great a capacity for perceiving relationships."

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heart with the conscience and the will, is promoted. Moreover, through the use of the material thing aid is secured in the spiritual interpretation of life. The handling of wood and iron inculcates truthfulness and respect for the nature of things. Observation becomes more keen, decision more prompt and precise. From the training of what are called the lower parts of our nature is secured the training of the higher. The work-shop leads to the library; the worker becomes a thinker, quite as truly as the thinker a worker. Mental development follows from manual, because mind is put into the hand.

Furthermore, through such training, the student is introduced into the larger life of man. The world is a world of work; its people toil daily with their hands for their daily bread. The student working with his hands comes into closer sympathy with the multitude, socially as well as politically. Democracy is promoted. The unworthy distinctions of class are leveled. Labor commands greater respect. The humanity of the student is developed. The enlargement of his individuality, the increase of his power helps to make him one with all men.

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Already in this movement are emerging certain problems which its dominance creates. These problems relate, in no small degree, to the relation of industrial training to the labor union. But experience has proved that the labor union is not to stand in the way of the progress of this vast development. Labor unions have simply requested that boys who are students in industrial schools should not be used to take the place of strikers in the case of a conflict between labor and capital, and also they are inclined to insist that the training given in the industrial schools should be thorough and ample. The first of these two conditions is not unnatural, and the second is honorable to the labor union itself. Besides the question of the relation of the industrial movement to the labor union, it also has been questioned what vocations should be taught in the school. In answer experience seems to indicate that the determination of the kinds of trade to be taught is to be made by local conditions. Trades which can be carried forward with special effectiveness in certain neighborhoods should be taught in the schools of those neighborhoods. Schools in iron and steel industries represent a particular function of

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Pittsburgh and of Cleveland, but not of Portland or Boston. Schools in glove-making are fittingly established in Gloversville, but not in San Francisco. Local conditions should and will determine.

Observation and experience have also made clear the fact that in the administration of industrial schools there should be a special combination of both the manufacturer and of the teaching authorities. This education, if carried on exclusively by the school authorities, would be in peril of becoming doctrinaire; if carried on exclusively by the manufacturer or by the mechanic, would be in danger of narrowness, superficiality, and general ineffectiveness. The conduct of such education by both school authorities and manufacturer, ensures that it shall be practical without being narrow, sound in educational method without being open to the charge of scholasticism and ineffectiveness, and fundamentally efficient without being superficially practical.

CHAPTER XII

INDIRECT EDUCATION

THE utilization of by-products is a characteristic of modern industry. This utilization has arisen both from the demand for the by-products and also from improved machinery and more effective industrial processes. A similar condition has emerged in education.

In one form of education, in particular, is this demand made evident. The vacation period has, it is now seen, become too long. The wastefulness of this period has been keenly and generally recognized. The evil has been manifest both in the public school and in the college. The pupils of the common school have, on the whole, squandered the summer vacation. Most of them spend their summers at home. They are not able to indulge in prolonged or recreative outings. The general condition of such boys in the city is lawlessness. If such boys, living in the country, are not obliged to work, they too incur many perils. Every wharf and mill pond may be-

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come an object of dread to parents. But in both urban and rural districts, these boys are Bohemians or barbarians. They return to their books early in September not with an appetite made keen by proper abstinence, but with a distaste for intellectual toil created by a barbarian life.

A similar condition is found existing in the colleges. The college year has, in fact, been greatly shortened within the last two generations. Vacations have correspondingly increased. The positive working time in many colleges has now become less than one half of the calendar year. This brief period becomes still more significant when it is recognized that out of it must be taken from four to six weeks for examinations. In the last half-century the normal college year was shortened from forty-two weeks to thirty-five and thirty-six weeks. The reasons of this abbreviation are manifold, some imaginary and others real.

It is to be noted that the long vacation in many colleges fell in the earlier time in the winter. This custom arose simply from the fact that many men were supporting themselves. Many men are now supporting themselves also in college, but in the early time

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the best method of securing self-support was teaching the country school. The country school was kept in the winter time. Therefore, the custom of the college adapted itself to the need of many indigent students. The names of some of the best men in American life might be cited, who made their way through college by keeping school in the winter. But, as schools, even in the country, have come to be kept not twelve weeks in the winter and six in the summer, but rather thirty-six weeks, the opportunity open to college men of using a winter vacation in this way has gradually closed.

One reason of the collegiate change lies doubtless in the change in the social customs of the American people. A summer vacation and a long summer vacation has come to be the rule for many. It is difficult, if not impossible, for the college to go against a social custom that seems to be imbedded so firmly in American life as is the long summer vacation.

A further cause is found in the demands of the professors of the college. The number of teachers in the American college who go abroad each summer rapidly increases. For

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such a trip and residence a long time is desirable. It is also to be said that the practice of American teachers going abroad is to be promoted. Their worth to their college becomes greater. Furthermore, the writing of books is now regarded as one of the duties that devolve upon teachers. Such work can be done only in the face of special difficulties, during the performance of the ordinary college routine; summer offers a fitting opportunity. I recently asked a professor of Yale College, who is the author of several volumes demanding much research, how he was able to write them. His laconic answer was, "In the vacation." It is at once to be said that the shortened college year and the lengthened vacation have arisen rather from the demands of the professors than from the demands of the students. The element, too, of the summer's heat has relation to the question. Colleges are becoming more and more urban, less and less rural. The depleting and disintegrating influence of the heat is more felt in a college placed as Harvard and Yale are now placed than it was felt in the villages of Cambridge and New Haven of sixty or even forty years ago.

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This shortening of the college year is, of course, a lengthening of the vacation for the college student. The use which the student makes of the summer vacation is a very serious question.

The significance of the shortened college year is greater than it might appear to be at first thought. For I cannot doubt that there is a certain positive and vital relation between the usefulness of the college to its students and the length of time that the students spend in college. Of course, certain men get as much from college in one week as other men get in four weeks, certain men get as much in one year as other men get in the whole course, but it is not to be doubted, in general, that a certain length of time is necessary for the student to receive that richness of culture and that discipline of training which it is the purpose of the college to bestow. The college cannot do as much for its men or women in thirty-six weeks as it can in forty-two, and certainly it does much less for them in thirty weeks of advancing instruction than it can in forty.

At this point the current discussion as to the shortening of the college course from four years to three has some value. At the present

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time in not a few colleges thirty weeks represent the advance work that the students are doing. Fifty years ago these same colleges were offering their students forty weeks of work in each academic year. If we could restore the academic year to its former limits of forty weeks and lessen the number of years by one we should have as long a period of progressive work in the college as we now have in the four years of thirty weeks each.

It is also to be said that the four years of forty weeks of fifty years ago represent one hundred and sixty weeks. To-day four years of thirty weeks each represent one hundred and twenty weeks. We have, therefore, cut out practically forty weeks from the whole college course of the present time as compared with the course of half a century ago. Such a diminution in time represents a very serious diminution in the power which the college has over its students.

It is not to be doubted that the shortening of the college year has given to the people the impression that the college is primarily an opportunity for leisure. The college is, of course, an opportunity for a certain sort of leisure, but the people have the idea that the

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leisure of the college student and of the college professor is a leisure for laziness, and not, as the truth is, a leisure for work. For people are constantly asking themselves, "What is the need of college teachers or college students working only eight or nine months when most of us work ten or eleven?" Whatever, therefore, tends to deepen or promote the impression that college people are indolent and lazy should be done away with. We ought through the college to impress the people that there is one place in the American life where there is leisure, but not an hour of leisure for indolence, but weeks of leisure for the most important and satisfactory service.

Any tendency in American society that looks toward the depletion of its highest and noblest interests is usually accompanied with an antidote. This shortening of the college year has been accompanied with two movements, one that has been in progress for forty years, and the other of more recent origin. Both of the movements are a part of what I have called indirect education.

The movement of more recent origin lies in the college having four terms in a year rather than three or two. The best known illustra-

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tion of this is found in the University of Chicago. In the University of Chicago the academic year consists of four terms of twelve weeks each. A student can be in college three years of four terms each, or, if he sees fit, he can prolong the time of his academic residence before going up for his degree to any period which may seem to himself and to the university authorities fitting. Such a method might become the usual method in the American college. Such a method, however, is difficult of application, for the reason that it can be applied in only such colleges as have a large teaching force. Wherever it is used, the teachers in the departments must be sufficiently numerous, and the variety of professional tastes sufficiently great, to permit an adequate number of teachers in each department to be in service, in order to ensure the giving of proper instruction. But the success which this method has met with in the University of Chicago has great value in eliminating the evils arising from the shortening of the college year.

The earlier and more important method of doing away with the evils of the long vacation lies in what is specifically known as the summer school. The summer school, begin-

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ning in desultoriness of method, in narrowness of curriculum, has proceeded by a process of natural selection and through responsiveness to the demands of environment into permanent, broad, and constant effectiveness. It began primarily as a school of science, especially of science taught in the laboratory, and it has become a school of all sciences and arts, of literatures and of the humanities.

As early as the summer of 1869, a dozen professors and students of Harvard University, chiefly from its Lawrence Scientific School, made a trip to Colorado. In the first four years of the eighth decade of the last century, Yale students, under the charge of Professor Marsh, made expeditions to the Rocky Mountain region. To the Yale and Harvard teacher opportunities of research and to the Yale and Harvard student opportunities of study and learning were opened. It was the custom of Professor Orton of Vassar College to spend with his students a part of the spring and summer vacation in the mountains of Pennsylvania or New York, studying geology. It was not, however, until the year 1873, that the first impressive attempt was made to found a summer school. This attempt has special signifi-

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cance. Near the close of the year 1872, Louis Agassiz announced a purpose, which, it appears, he had long cherished, of organizing a school of natural history near the seaside during the summer months. It was designed, chiefly, for teachers who desired to introduce the study of natural history into their schools and for students desiring to become teachers. The school was, through the generosity of Mr. John Anderson, of New York, placed on Penikese Island, in Buzzards Bay, twenty-five miles southeast of Newport. On the 8th of July, 1873, the school was opened. Two score of students were found to be in attendance at its beginning. The address of Professor Agassiz made at the time is significant of the primary purpose of all the early summer schools.

“Our object is to study nature, and I hope I may lead you in this enterprise, so that you may learn to read for yourselves. We should make nature our text-book. Whenever we read books, we are removed from the things we could be better acquainted with. Instead of the things themselves, we appropriate the interpretation of some one else; and however, correctly we may have done this, we invariably return to the study of things themselves when-

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ever we wish to make real progress; and I hope to live long enough to make text-books useless and hateful, without even implying a reflection upon the services text-books have rendered in past time. . . . The advantages you enjoy to-day have given you greater facilities for work, better appliances, than I had myself not merely when commencing my career, but when making some of my most important investigations."

But the school begun so auspiciously was destined to a premature decline and dissolution. Financial difficulties appeared. The \$50,000 which Mr. Anderson had given as endowment had been largely spent in organization and in the expense of teaching. But, above all, Agassiz himself died in December, 1873. This unique endeavor, however, made a great impression upon the educational and general public. Its significance has been well intimated in one of the most moving of Whittier's poems. It also was the origin and spring of other summer schools. The Kirtland school at Cleveland in the summer of 1875, the school of the Peabody Academy of Science at Salem in 1876, are types of some of the results accruing from the Penikese experiment.

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In the summer of 1874, Harvard University established at Cambridge courses of instruction in chemistry and botany for teachers and others specially qualified to pursue them. In the next summer a course in geology was added. In each of the following summers also, further additions were made to the scientific curriculum. Presently, courses linguistic, mathematical, and historical were included. The growth of the Harvard School has been a constant enlargement of courses and of the development of teaching. The number of the courses has been increased and the courses themselves have been made more valuable. The work of the summer school has constantly tended to take on the elements and characteristics of the regularly constituted curriculum. Every scholastic value of the ordinary college year is found in the summer term, and moreover the students are more enthusiastic and industrious.

Summer schools have throughout this period come to fall into one of four classes. First, special schools, teaching a single branch, as theology or modern languages; second, art schools, teaching music, drawing, or industrial art; third, professional schools for the

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training of teachers; and fourth, general schools, where all ordinary subjects are offered. The fourth and last class has greatly increased in public significance.

The work which President Harper thus accomplished in the incorporation into the American university and college of a fourth term represents one of the most significant and useful of all the works which he did in his great and brief career.

A second form of indirect education of recent origin and development lies in what are known as night or evening schools. These schools are simply a part of the public school education the sessions of which are held in the night time. They assemble in the public school buildings. They are ordinarily designed for those who have been obliged prematurely to leave school. Their attendance consists of older boys or girls or of adult foreigners. The course of study is simple. It represents the typical grammar school. But in some cities, high schools have been established for giving instruction at night. Cleveland is a noteworthy example, in which no less than seventeen hundred pupils of the high school grade are enrolled.

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But in addition to public night schools many private schools are organized. These schools especially have been founded by the Young Men's Christian Association and the Young Women's Christian Association of many cities. The great schools of the Cooper Union in New York are conspicuous examples of this type of public service.

A third form which indirect education has assumed lies in what is known as the correspondence method. To President Harper also is due, if not the origin of this method, at least its special effectiveness. As early as the year 1880, Professor Harper began to teach Hebrew to ministers and other students through correspondence. In the year 1881 he founded the Institute of Hebrew, to give ministers and others, who could not attend a theological seminary, opportunity to study the language and literature of the Old Testament. His first class contained twenty students. The work developed rapidly and in 1889 was reorganized as the American Institute of Sacred Literature — an institution with a much broader purpose.

Presently Chautauqua began to give such teaching, in large and impressive ways. Soon

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after the organization of the University of Chicago, in 1892, a regular department of instruction by correspondence was founded. At the present time, half a dozen schools are organized either as philanthropic agencies or as institutions designed for profit. They are engaged in giving tuition in many subjects to hundreds of thousands of students. Technical and scientific subjects are largely offered, but also courses are found in every topic which the school or college provides.

The most significant of all movements of teaching by correspondence is found in the International Correspondence Schools. The International Correspondence Schools were founded in the year 1891 with headquarters at Scranton, Pennsylvania. Their origin, like the origin of many significant movements, rests in the filling of a definite and special need. Fifteen years after the foundation of the schools, the President, Thomas J. Foster, said, —

The schools had their beginning in efforts to teach coal miners to qualify for examinations that candidates for appointment as mine inspectors and mine foremen must pass in this and other states. To pass these examinations they must solve the

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formulas governing the flow of air through mine passages and understand the gases met with in mines, mine surveying, and the machinery used about mines. To do this, they need to know many of the processes in arithmetic, including involution, evolution, ratio and proportion; the use of the signs and symbols employed in formulas, the applications of formulas and their solution, and something of chemistry, geometry, trigonometry, mechanics, and hydromechanics. It is no ordinary educational problem to impart this knowledge to men who never attended school, or did so for only a year or two before they were put to work; who are ignorant of the first processes of arithmetic; whose average age is twenty-seven; who work every day in the mines; who have families to support; who cannot quit work to attend a day school; and who will not attend a night school because they cannot be present at every session, and because they are ashamed to expose their ignorance to others who attend; who, when studying at home, use the kitchen table for a desk and often rock the cradle with one hand, to keep the baby quiet, while holding their lesson paper in the other — it is no ordinary educational problem, we say, to impart this knowledge to such men. The present I. C. S. plan of teaching is the perfected system with which men conditioned and situated as described are qualified in all the subjects of a mining education, and made

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mining engineers, mine inspectors, mine superintendents, and mine foremen.¹

From the filling of this purpose of teaching of miners, the movement broadened out into teaching of engineering trades and professions. The breadth has constantly widened, and at the present time in not less than thirty-one departments is instruction given. They represent a diverse and manifold field. Among them are advertising, architecture, commerce, drawing, electrical engineering, electrotherapeutics, English branches, French, German, Spanish, law, lettering and sign-painting, locomotive-running, mathematics and mechanics, mechanical engineering, coal mining, metal mining, navigation, pedagogy, plumbing, heating and marine engineering, structural engineering, shop and foundry practice, steam engineering, telephone and telegraph engineering, textiles, window-trimming and mercantile decoration.

Teaching by correspondence makes a special appeal to men and women who are remote from educational centres and influence, to those who are obliged to toil at a regular call-

¹ *Fifteenth Anniversary Report of the International Correspondence Schools*, p. 55.

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ing day by day, and also to those who are not able in youth to receive the advantage of a formal education. This form of teaching makes a special appeal to students of earnestness. Its advantages lie in both what it does and what it does not accomplish. It serves to start the student in a form of study which otherwise he may not find himself able to undertake; personally he feels that he can proceed further without going to a regular school. The correspondence method is an excellent spur; it stands possibly half way between self-teaching and the teaching of the classroom. Among the difficulties which it encounters is the fact that it tends to cause overestimation on the part of the student of his ability and knowledge. It is subject to not a few of the disadvantages of self-education. It tends to produce the conceit of half-knowledge. Many of its students are easily discouraged and retire early from its pursuit. But despite its disadvantages, it represents a form of education which has already proved of much avail, especially in scientific subjects.

CHAPTER XIII

THE PENSION SYSTEM, OR THE CARNEGIE FOUNDATION FOR THE ADVANCEMENT OF TEACHING

MODERN education is, in no small degree, a socializing process: it represents a service to the whole community done for the individual which formerly the individual did for himself. The pension system for teachers, established in many cities, is an impressive illustration of the principle and method. The government of the city is making for the teacher a saving in money which, in the earlier time, the teacher made for himself. But the Carnegie Foundation for the Advancement of Teaching is not primarily either a pension system or a form of socialism. The name of the institution well expresses its purpose. It is designed to advance the cause of teaching. The method used for advancing the cause of teaching is the promotion of the welfare of teachers, and the special means used in this promotion is a system of retiring allowances. The primary

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and comprehensive emphasis is put upon the phrase, "advancement of teaching." As says the president of the corporation, "In a word, the Carnegie Foundation for the Advancement of Teaching must be first an educational agency before it can act wisely in awarding retiring allowances."¹

The purpose and method of the Foundation are well embodied in Mr. Carnegie's original letter, bearing the date of April 16, 1905. He says: "I have reached the conclusion that the least rewarded of all the professions is that of the teacher in our higher educational institutions. New York City generously, and very wisely, provides retiring pensions for teachers in her public schools and also for her policemen. Very few indeed of our colleges are able to do so. The consequences are grievous. Able men hesitate to adopt teaching as a career, and many old professors whose places should be occupied by younger men, cannot be retired."² As a result Mr. Carnegie gave \$10,000,000 (in five per cent mortgage bonds of the United States Steel Corporation) to provide retiring pensions for the teachers of

¹ *Second Annual Report of the Carnegie Foundation*, p. 65.

² *First Annual Report of the Carnegie Foundation*, p. 3.

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universities, colleges, and technical schools in the three English-speaking districts of North America. The fund was made to apply to these institutions, without regard to race, sex, or color. Two classes of institutions, however, were at once debarred: the tax-supported colleges and sectarian colleges. The trustees were given full powers to manage the trust thus committed to them, and Mr. Carnegie closed his statement by saying, "I hope this fund may do much for the cause of higher education and to remove a source of deep and constant anxiety to the poorest paid and yet one of the highest of all professions."¹

A charter was in due time secured from the United States government, under which the administration of the great trust has since been conducted. The men to whom were committed the trust were the presidents of universities and colleges, together with three gentlemen, two of whom were officers of banks or trust companies.²

¹ *First Annual Report of the Carnegie Foundation*, p. 4.

² The first board of trustees whom Mr. Carnegie selected to administer this fund were: Hill McClelland Bell, Drake University, Des Moines, Ia.; Nicholas Murray Butler, Columbia University, New York City; T. Morris Carnegie, 542 Fifth Avenue, New York City; Edwin B. Craighead, Tulane University,

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The needs of such a benefaction as this great foundation represents were and are evident enough. The education of a college teacher embodies some ten years of work of the higher educational type and an expenditure varying from five thousand to ten thousand dollars. This expenditure of money represents an investment of capital. As a result, statistics show that this college professor who has prepared himself for the profession of higher teaching, may hope, at the age of twenty-

New Orleans, La.; William H. Crawford, Allegheny College, Meadville, Pa.; George H. Denny, Washington and Lee University, Lexington, Va.; Charles William Eliot, Harvard University, Cambridge, Mass.; Robert A. Franks, Home Trust Co., Hoboken, N. J.; Arthur T. Hadley, Yale University, New Haven, Conn.; Charles C. Harrison, University of Pennsylvania, Philadelphia, Pa.; Edwin H. Hughes, De Pauw University, Greencastle, Ind.; Alexander C. Humphreys, Stevens Institute of Technology, Hoboken, N. J.; Henry C. King, Oberlin College, Oberlin, O.; David Starr Jordan, Leland Stanford Jr. University, Cal.; Thomas McClelland, Knox College, Galesburg, Ill.; Samuel B. McCormick, Western University of Pennsylvania, Allegheny, Pa.; William Peterson, McGill University, Montreal, Canada; Samuel Plantz, Lawrence University, Appleton, Wis.; Henry S. Pritchett, Massachusetts Institute of Technology, Boston, Mass.; Jacob Gould Schurmann, Cornell University, Ithaca, N. Y.; L. Clark Seelye, Smith College, Northampton, Mass.; William Rainey Harper, University of Chicago, Chicago, Ill.; Charles F. Thwing, Western Reserve University, Cleveland, O.; Frank A. Vanderlip, City National Bank, New York, City; Woodrow Wilson, Princeton University, Princeton, N. J.

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eight, to obtain a salary of \$1250. Three years later this salary will have normally increased five hundred dollars, and two years later a second increase of five hundred dollars will also have been made. At the age of thirty-five, the normal time of securing a full professorship, his salary will have become \$2500. But in addition to this low rate of stipend, it is to be said that in most institutions the maximum of salary is low. There are only eight institutions in this country giving an average salary to a full professor of \$3500 or over. Thirty-five pay between \$1700 and \$2100, and forty-seven between \$2100 and \$3200.

It is difficult to compare these pecuniary rewards with the rewards of other professional men. The comparison cannot be worked out accurately, but it would seem that the abler doctor or lawyer or engineer is, in New York, Boston, Chicago, receiving far larger income than is the full professor in the colleges of these cities. As says President Pritchett, "In only five institutions in America is the possibility for a professor greater than \$5500. Four of these institutions are universities located in New York, Boston, Chicago, and Philadelphia. In these four cities a lawyer, a physician,

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or an engineer does not have to attain extraordinary eminence to receive several times the salary which is the utmost hope of the college teacher. Good, plodding men, who attend diligently to their profession but who are without unusual ability, often obtain in middle life an income considerably higher than a man of the greatest genius can receive in an American professor's chair."

In speaking of the executive work and administration, as well as of teaching, in comparison with other forms of service of high order, President Pritchett also says:—

The presidency of a great university demands talent and administrative skill of a very high order. The salaries are not much above the upper range of what a professor may receive. In the great cities of the country the really great lawyers earn from sixty to one hundred thousand dollars a year. The prevalent opinion seems to be that the physicians and surgeons of great eminence and reputation receive from fifty to one hundred thousand dollars a year. Exceptional years occur when even these figures are exceeded by the leaders of the professions. It must be considered what effect these facts, not to speak of the fortunes possible to business skill, have upon the high-spirited youth

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about to choose a life work. If he selects college or university teaching the utmost limit he can hope for will be the financial success attained by the average man of his class who chooses the other professions. In other callings great ability brings a proportionate reward; the best man may expect from twenty to forty times the reward of the average man. In industry and business the best man may expect from two hundred to four hundred times the reward of the average man. But in teaching and scholarship the best man cannot, under present conditions, expect much more than from two to four times the financial reward of the average man. No matter how great the ability of the college professor as a teacher or scholar, there is no working probability that he will ever be paid more than a minor officer of a railroad or industrial company. It is not strange that the possibility of teaching seldom presents itself seriously nowadays to the best students in a large graduating class. That gifted men do enter the profession of teaching is due solely to the love of teaching, study, and research. The fiscal arrangements of the profession of college teaching are just such as would attract a mediocre person who did not expect that in any other activity the world held out to him very much. The need for larger prizes is pressing.¹

¹ *Financial Status of the Professor in America and Germany*, p. 25.

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The scholastic, social, and financial condition of the professor in a German university is, on the whole, a contrast to the like position of the American college teacher. He is obliged to spend a greater length of time preparing himself for his professoriate. If the American college professor begins his formal teaching at the age of twenty-six or twenty-seven, the German begins his formal teaching near the age of thirty. From thirty until thirty-six, under normal conditions, he is a docent, having an annual stipend of not over \$200. For the five years following the age of thirty-six his annual income probably runs from \$600 to \$2000. At forty-one rather than thirty-five, as in America, he obtains a full chair. But there is a contrast much more in favor of the German found lying in the fact that the number of high pecuniary prizes is much greater in German universities than in American. The large university stipends are more numerous as well as larger in Germany, in relation to the average stipend, than obtain in America. There are, for instance, eight German professors who receive incomes of \$9000 and over, and three whose stipend is above \$10,000. In respect to the value, too, of a university in-

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come, it is to be remembered that the purchasing power of money is much greater in Germany than in America. It must also be said that high as is the social place of a professor in an American college, the place accorded his German colleague is much higher. He holds it, too, with a greater sense of security.

In order, therefore, to promote the interests of teaching, and in order, furthermore, to advance the higher interests of the community so far as they are related to teaching (and they are related intimately), the need of such a beneficence as the Carnegie Foundation represents seems to be most urgent. The maker of the Foundation has done many great things for the benefit of the community, but none greater or more beneficent than this Foundation for the Advancement of Teaching. For teaching has become the great force for the civilizing of the community, and the primary force in teaching is the teacher. Whatever shall attract into that profession men of the highest type of intellectual and of moral character, and shall give to them a proper condition for rendering proper service, represents a strengthening of the elements of the community in its most fundamental relationships.

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In the administration of this great fund, the trustees have laid down certain conditions or tests. One relates to an educational standard. No institution of a lower grade than the college is included. The troublesome matter of determining what is a college has been settled by the adoption of the definition found in the statutes of the State of New York, to the intent that "an institution to be ranked as a college must have at least six professors giving their entire time to college and university work, a course of four full years in liberal arts and sciences, and should require for admission not less than the usual four years of academic or high-school preparation, or its equivalent, in addition to the pre-academic or grammar school studies," — and it is also declared that "a technical school, to be eligible, must have entrance and graduation requirements equivalent to those of the college, and must offer courses in pure and applied science of equivalent grade." No institution can be ranked as a college, it is further said, unless it "have a productive endowment of not less than two hundred thousand dollars."¹ These two tests of educational and financial

¹ *First Annual Report of the Carnegie Foundation*, p. 62.

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standards have excluded not a few colleges from enjoying the benefits of the foundation.

For the granting of a retiring allowance in institutions which are accepted are two bases: either age or long service. On the ground of age a teacher must have reached the age of sixty-five years, and must have taught for at least fifteen years. On the ground of service, however, if he has taught for twenty-five years, of whatever age he is eligible.¹ Such teachers, in institutions which meet the conditions of scholastic, financial, and undenominational standards, receive grants as a matter of right. But certain teachers too, who are not found in the accepted colleges, of merit or distinct service to the cause of education, are also favored. The amount of the grant is determined essentially by closely drawn rules. The average salary for the last five years of active service is taken as a basis. On the ground of age, for an active salary of sixteen hundred dollars or less, an allowance of one thousand dollars is made; for an active pay greater than sixteen hundred dollars, the retiring allowance equals one thousand dollars increased by fifty

¹ This ground has recently been largely eliminated, the expense being heavier than the income would bear.

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dollars for each hundred dollars of active pay in excess of sixteen hundred dollars. On the ground of length of service a similar method is pursued, although the minimum allowance is eight hundred dollars rather than one thousand, and the amount beyond sixteen hundred dollars is reckoned on the basis of a minimum of eight hundred dollars increased by forty dollars for each hundred dollars of active pay in excess of sixteen hundred dollars. The maximum of any retiring allowance is four thousand dollars.

Church colleges are excluded from the benefits of this foundation. The number and variety of methods by which a church may seek to control the higher education are greater, far greater, than would seem possible. More than a score of such methods are easily discriminated. Under these methods no less than five hundred institutions in the United States and Canada are thus subject to a certain degree of control or at least of supervision. In many cases religious restrictions are put upon the board of trustees, the faculty, or the members of the corporate body of a college or university. Such restrictions show a surprising variety. Among them are:—

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“Both the trustees and the faculty must belong to a specified denomination.” “Majority of both trustees and the faculty must belong to a specified denomination.” “The trustees must all belong to a specified denomination.” “Majority of trustees must be clergymen of a specified denomination.” “Majority of trustees must be chosen from two specified denominations.” “Half the trustees must belong to a specified denomination.”¹

In some institutions these restrictions are reënforced by the vesting of the ownership of the property of the college or university in a religious organization. Among the methods for securing this result are: “Property of the institution is owned outright by a denomination.” “Property of the institution is owned in equity by a denomination.” “Property of the institution is owned by a subsidiary or allied corporation of a group of denominations.” “Institution is owned by a religious order.”¹

A third method of control lies in the fact that trustees are either nominated by a religious assembly or corporation or that their election is subject to confirmation by such a

¹ *Second Annual Report of the Carnegie Foundation*, Table before p. 53.

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body. Among the methods of securing this result are: "Election of trustees must be confirmed by governing bodies of a denomination." "Election of each trustee must be specifically approved by the governing body of a denomination." "Election of each trustee must be specifically approved by a high ecclesiastical officer." ¹

But the most popular method of controlling or supervising education by a church relates to the choice of members of the board of trustees by a religious assembly or corporation. Among the varieties of such methods are the following: "Trustees are elected by governing bodies of a denomination." "Trustees are elected by a subsidiary or allied corporation of denominations." "Majority of the trustees are elected by . . . a subsidiary or allied corporation of a group of denominations." ¹

The number and variety of such methods of partial or full control of an institution of education by an institution of religion represent one of the most important elements in the administration of this Foundation, as they also represent one of the most important matters

¹ *Second Annual Report of the Carnegie Foundation*, Table before p. 53.

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in the whole community. With this condition, the administration has sought to deal justly, impartially, and always considerately. For no element in the administration of this beneficence has awakened more questioning or more deeply stirred the feelings of the college professor than the disbarment of denominational institutions. The president of the Foundation in an address made before the Conference of Education of the Methodist Episcopal Church South, at Atlanta, in May, 1908, said that —

There seemed to him to be but three positions which a denomination may take toward a college which are entirely honest and consistent, and no other solution of this relation than an entirely frank and consistent one will be accepted by the world or is likely to bear fruit. A church may frankly say, that in order to carry out its legitimate work and advance its cause, it must control and direct a certain number of institutions of higher learning in which men may grow up devoted to its service.

Secondly, a Christian organization may claim that it has both a right and a duty to control and conduct colleges on the ground of its fitness and efficiency as an educational agency. This claim of the church was based in the past on the assumption of superior scholarly fitness; in our day it is based on the ground of greater religious efficiency.

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Finally, a Christian organization may take the position that all colleges and universities being influential agents in the training of men, are also agencies for moral and religious influence, and therefore the church will seek by friendly coöperation, by sympathetic fellowship, by all the means of Christian activity, to make itself a religious influence in all institutions of the higher learning without assuming their control or support.

In reference to these three positions President Pritchett well adds, —

The policies which are likely to be pursued in the future seem, therefore, to lie along two clearly marked paths: —

A religious organization may say frankly that it finds the college a necessary part of its machinery. It, therefore, will assume both control and support of such colleges as it needs.

On the other hand a religious organization may say: Our purpose in dealing with a college arises out of an interest in religion, not out of our desire to advance organization. We will, therefore, have fellowship with as many colleges as possible without seeking their control or undertaking the responsibility of their support.¹

Whatever else may be the church's duty, —

¹ *The Relations of Christian Denominations to Colleges*, pp. 10-11.

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whether it ought to give its energy to the support and control of colleges or not, this must seem clear: the church needs to-day to appropriate to its own use, in training its own men, the facilities for general education provided in colleges. The world needs to-day efficient religious leadership. The man who aspires to such leadership — whether he deal with wage-earners or millionaires, with business men or college students — must be educated in the highest and largest sense. If any branch of the Christian church is to grow in the efficiency of its religious leadership, it must draw into its service in increasing proportion men whose education is sincere, thorough, and broad. That end is the more likely to be gained, to my thinking, in proportion as the bodies of organized Christianity succeed in relating themselves in all institutions of learning along the lines of religious rather than denominational sympathy.¹

The influence of the Foundation in causing colleges to give up denominational affiliation has been strong and promises to become stronger. Colleges as remote in history and in relationship as Dickinson College, Pennsylvania, and Bates College, Maine, have severed

¹ *The Relation of Christian Denominations to Colleges*, pp. 24, 25. See also *Third Annual Report of Carnegie Foundation*, pp. 167-179.

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themselves from ecclesiastical control. The historic college of Maine, Bowdoin, has surrendered a sum of more than fifty thousand dollars in order to be placed upon the list of accepted institutions. Other colleges, through changes in their constitutions or charters, have been able to secure a similar result.

It seems at first blush somewhat contradictory that colleges should be excluded for sectarian reasons, and that institutions supported by the individual tax of the commonwealth should likewise suffer under a similar exclusion. It was the earlier thought of Mr. Carnegie that each commonwealth would come to provide proper pension systems for the officers of its own institutions of the higher education. This prophecy has proved to be false. Two years after the making of the first grant of ten million dollars, he offered to make an additional gift of five millions for the purpose of providing similar retiring allowances to officers in the state institutions. On the part of the administrative officers of the Foundation, it came to be felt that to divide the institutions of the country into two groups on the ground of state support or of support personal would be a grave misfortune. Both classes of insti-

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tutions belong to the public. No college can be called private. In the same commonwealth, institutions supported by the people in their governmental capacity and institutions supported by the people as a general community hold many and intimate relationships. But any state which wishes to receive the advantages of this gift for its university is obliged to ask for it through an act of its legislature, approved by its governor. The first legislature which made this application was that of Massachusetts. That body resolved, "That the board of trustees of the Massachusetts Agricultural College are hereby authorized and directed to use their best efforts to secure and accept for the college the benefits of the retiring fund of the Carnegie Foundation for the Advancement of Teaching."¹

This additional grant of Mr. Carnegie has not met with the unanimous support of the states. Influential newspapers, in several states, have opposed its acceptance. It has been said that such a state as Wisconsin, for example, was able to care for its own teachers without the aid of any private individual. Nebraska declined to make a formal application.

¹ *Third Annual Report of the Carnegie Foundation*, p. 63.

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In the four years which have elapsed since the actual beginning of the administration of this great trust, noblest results have emerged. The more evident results relate to the actual number and amount of retiring allowances granted to professors in American colleges. On the last day of September, 1908, 216 retiring allowances were in force. Of these, 92 were granted on the basis of age, 79 on the basis of service, 19 on the basis of disability. The amount of money thus annually granted was \$315,140. The general average to an individual slightly exceeded \$1500.

The significance of this pension system becomes tenderly and beautifully impressive as one reads the list of the names of those who are receiving its beneficence. The list represents the best and noblest and most deserving in American life and service. Among them are two of the great teachers of philosophy in the two historic universities, recognized throughout the world as great thinkers. Professors of Greek and Latin, of mathematics, of biology and geology and physics, of physiology, anatomy, zoölogy, college presidents and chancellors, deans, secretaries, and treasurers, as well as leaders in American educational life, are

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included. The record of great names is impressive, but the record also of names which are not eminent, which represent pure and noble service rendered under somewhat hard pecuniary conditions, is still more impressive. No part of this membership in this hall of fame and merit is more touching than the names of the widows of professors who have wrought well. The pension of a widow is one half that of her husband. I know that letters have been written by women who are in receipt of this grant which have led the maker of this foundation to say that "this is the best dividend."

The service which is thus rendered to the American teacher and the American home is priceless. But the advantage which belongs to the individual in this benefit is slight in comparison to the advantage which accrues to the cause of teaching. It is never to be forgotten that this Foundation is laid for the advancement of teaching.

The administration of this Foundation does not interpret or execute its work in any narrow way. Teaching is a large profession and the elements that make for its advantage are numerous. In order to carry on its work justly, the Foundation has promoted what might be

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called certain standardizing processes in the higher education. To acquaint itself properly with the financial condition of American colleges, it has sought to promote uniformity in financial reports. It is to be confessed that the business administration of American colleges is often conducted with lamentable and sometimes with criminal carelessness. The Foundation has sought to promote simplicity in the presentation of balance sheets and proper accounting. The public desires to know what amount of the income of a college is spent in teaching, what part in administration, what part in libraries, laboratories, and what part in what is called "miscellaneous." The Foundation has provided certain blanks which are furnished to all colleges which may desire them, presenting an excellent method of accounting both on the income and expense side. A similar standardizing process has gone forward in respect to conditions for admission. Colleges differ fundamentally in respect to these conditions. The Foundation has been able to level up these conditions. In the North Atlantic States, an advance from thirteen to fourteen units has been made; in the South Atlantic from ten to twelve; in the South

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Central States from nine and ten to twelve and a half. The difficulty of securing uniformity for a high grade of admission lies in no small degree in the desire for numbers, a desire common and strong among colleges. Colleges are inclined to yield to the temptation of scholastic looseness in order to attract students.

One noble result of the establishment of the Foundation lies in the promotion of the community interests of the higher education. The higher education in the United States and Canada has been centred in institutions which have usually had only or chiefly local relationships. They represent rivalry. They have been founded to serve a small community. Their development has been made along narrow lines. The Carnegie Foundation for the Advancement of Teaching has served as a force unifying institutions now existing, lifting the individual institution up to a higher level of service, seeking to consider the progress of higher education, not from the point of view of the single institution, but upon the basis of national and human betterment.

When the Foundation was laid, fears were expressed that the institution might prove to be a too great centralizing power, that it

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vested in the keeping of a small number of men too large powers. These fears have proved groundless. The Carnegie Foundation has sought to further the interests of all institutions and of every state. It has not refrained from criticism, as in the case of the University of Oklahoma. It has not been loath to refuse requests from colleges and individuals to become its beneficiaries. The petitions it has denied are far more numerous than those it has granted. But on the whole it has become recognized that its vision has been large, its motives high, and its discriminations true, regarding the development of the higher education. It has sought to put an end to the multiplication of unnecessary institutions, it has endeavored so far as was right to unite those that are weak, to reënforce those whose place and work deserve recognition, and to give to our educational force unity, breadth, uplift, coherence, and efficiency.

The first four years of its work, of very great service to the cause of the higher, and so of all, education in the United States and in Canada, give promise of highest usefulness as long as the American college and university exist.

CHAPTER XIV

THE UNITED STATES AS A WORLD-POWER IN EDUCATION

THE world daily becomes smaller. Its unity increases. The relations of nation to nation, of individual foreigner to individual foreigner, grow more numerous and more intimate. Commerce, industry, steamship, cable, mail, bind the different parts of the globe together into closer oneness.

In these augmented relationships the United States bears an enlarging part. In no field of endeavor or effort are these relationships so important, so significant, so impressive as in education. These educational relationships are twofold: The United States receiving as students the men of foreign countries, and the United States going out into foreign countries with its teachers, for the purpose of establishing schools and colleges.

The record of the students who have come to America covers somewhat more than two score years, and embraces several nations,

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but especially China, Japan, India, and our Philippines.

The first delegation of students sent from Japan came, however, not to America, but to Holland. The year was 1859. These men engaged in the study of navigation, ship-building, and law. The number rapidly increased in the course of the next decade, and as early as 1875, within five years of the accession of the present great emperor, not less than two hundred Japanese students studied under the care of the home government in England, France, Germany, Russia, Austria, Italy, Belgium, Switzerland, and Holland. The first delegation that entered the United States landed in Boston in the year 1868. In the succeeding five years, at least one hundred were found pursuing courses of study either under private tutors or in the schools of New England and of Pennsylvania. With the coming of those who were formally accredited by the government, entered not a few matriculating at their own charges.

These men were the precursors, both in their private and in their governmental relations, of a still larger immigration. From year to year, from decade to decade, scores of students

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have come to the United States from Tokyo, Kyoto, Kobe, and other capitals and parts of Japan to be educated. They have come for diverse purposes. In the year 1880 the Japanese commissioner of education to this country, Tanetaro Megata, wrote me, describing the government students who had studied or were at that time studying in this country: —

Two of them were graduated at Boston Law School and are studying the practice of law. One of them was graduated at Cambridge Law School, and is also studying the practice in New York. One of them was graduated at Columbia Law School, and got another degree from the Yale Law School, where he is studying now. Three of them were graduated at Columbia School of Mines, and they are studying the branch by practical investigation there. Two of them were graduated at the Polytechnic Institute, Troy, New York, and are studying now practically.

Yale College has been one of the chief points, if not the chief, of attraction for Japanese students; and in Yale College George Trumbull Ladd has possessed the largest attractive force. In the year 1892 Professor Ladd paid a visit to Japan, invited by two of his former pupils, Nakashima, now professor of ethics in the

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University of Tokyo, and Harada, professor at the Doshisha in Kyoto. In the course of this visit Professor Ladd lectured in many places on ethical and religious subjects. Professor Ladd brought back with him three young men to enter as students at Yale. Since 1892, for many years, their brethren have come to New Haven in increasing numbers. In fact, Professor Ladd so interested American friends in this endeavor that he raised nearly ten thousand dollars to aid promising young Japanese to come to this country to pursue graduate studies. Among the pupils of Professor Ladd and his associates at New Haven were not a few who represent important interests in Japan and in neighboring states. Among them are Professor Ukita of Waseda University, Tokyo, a prominent member of Parliament, Masao of the Supreme Court of Siam, Kozaki, a former president of the Doshisha, Ichihara and Murai, distinguished bankers. At a little earlier time Hatoyama, who was at one time speaker of the Japanese House, and Tukoka had taken degrees at the Yale Law School. The great work which Ladd has done for Japan through training Japanese in his lecture rooms in New Haven has borne rich

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fruitage. In a residence of a year in Japan, in 1905-06, he again became a teacher of teachers and of university students.

The history of the Chinese students who have come to America is singularly like and singularly unlike the record of the Japanese. The story of their early coming is in no small degree bound up in the history of the life of Yung Wing. Yung Wing was born in Southern China in 1828. He spent several years of his boyhood in schools conducted by Christian missionaries. At the age of nineteen, under the charge of an American missionary, Dr. A. S. Brown, he came to this country and entered the academy at Monson, Massachusetts. After spending only two and a half years in preparation, he was admitted to Yale College in the year 1850. His career in Yale College was unique. His preparation had been inadequate, and he did not, despite hard work, attain high rank in general scholarship, but he excelled in the departments of metaphysics and English composition. In fact, his repeated winning of prizes for writing caused a constant sensation without as well as within college walls. It was well understood at Yale College that he was deeply interested in the project of what after-

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wards became known as the Chinese Educational Mission. On graduation he returned home. Though his tastes and feelings and relationships made him more at home in America than in China, yet he knew that his duty lay in his native land. He went back to China almost an exile. In April, 1855, he landed in Hong-kong. At once he began to take his first steps in renewing his old life. The end which he constantly held in view was bringing a large number of his own people to America to be educated and afterward to return to their native shores to make a better China. He became a private secretary to Peter Parker, commissioner of the United States in China, but the place did not answer his expectations. He next entered the service of an English law firm at Hong-kong as a student, but soon lost his opportunity because the firm perceived it was raising up a competitor and a rival. Presently he took a place in the customs service at Shanghai. Herein he found little opportunity for promoting his plans, and he retired. In 1860 he entered the service of a great silk and tea house of Shanghai as a traveling inland agent. This place allowed him to study his countrymen. After a

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year of this service he set up in this business for himself. In the year 1862 he became an associate with the great Tsang Kwan Fan, Viceroy of Kiang Su and Kiang Nan provinces, one of the leading men of the whole empire. This association began through an astronomer of the court, with whom Mr. Yung Wing had had some relationships. Tsang Kwan Fan was a great man, not only as an administrator, but also as a statesman. Yung Wing entered the service of the great man and was soon made a mandarin of the fifth rank. Presently he was sent to England, France, and the United States to buy arms, for the Taiping rebellion was at its height. From 1865 to 1870 he was employed in different government works. At this time he made various translations of law books into Chinese. Throughout this period he had held his hope high, and he found that experience and observation were contributing toward the reasonableness of his hope. He saw that China in her commercial and government relationships suffered by reason of being obliged to employ foreigners. Her ships of war and her forts were manned by foreigners, her customs service was in the hands of foreigners, her diplomatic service was conducted by

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Anson Burlingame. His arguments made an impression upon three great men, among whom were Viceroy Tsang Kwan Fan and the great Li Hung Chang. But at last the opportunity for Yung Wing opened suddenly, as it so often does, after years of preparation and waiting. In the month of June, 1870, occurred the Tientsin massacre, in which a considerable number of French Roman Catholic missionaries were murdered by a Chinese mob. To the commission which settled the damages Yung Wing was attached. The limitations under which his countrymen labored in making the settlement gave new weight and added value to his arguments. Presently there was drawn up a memorial addressed to the government that a body of Chinese youth should be sent abroad at the government's expense to be educated for the government service. This memorial, sent to Peking in the month of August, 1871, was adopted by the imperial government, and the sum of five hundred thousand dollars was appropriated to carry it into execution.

After almost a score of years of working and waiting the purpose of Yung Wing, born while he was a student at Yale, was gained.

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At once a school for candidates was opened at Shanghai. From the number were selected by competitive examination thirty men, who came to the United States in the year 1872. The first number of thirty was supplemented by others until about one hundred had arrived in the United States. It was given to Yung Wing to determine the place of their location. He might have sent them to England or to Germany or to France, but he took them to America and largely to New England. In fact Hartford was made the headquarters of the great delegation. Here a large house was erected by the Chinese government at the cost of fifty thousand dollars. The residence, however, of the students in this house was brief, it being a sort of home for these homeless youth to which they came from the places of their education in the different academies and schools of New England.

In the year 1880 these youths were suddenly called home. One of those anti-foreign spasms which not infrequently attack the Chinese government was the cause of their recall. It was then felt, as it is often felt, at Peking, that the Chinese were too rapidly ceasing to be Chinese. But the years which were spent here, six

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or eight for many of these boys, were sufficient in number and in intellectual and ethical value to form character and to secure efficiency.

The record which the one hundred and twenty Chinese students who came to America in 1872 have made is unique and impressive. When they returned to their native country in the year 1881, it was found that they had forgotten their language. It was a time of reaction. They were told to re-learn their language, and, in the mean time, the Chinese ministers commanded them to become telegraphers or to do similar work. They rose slowly, but they rose. The following twenty-five years was a period of the enlargement of public opportunity and of the worth of their public service. In the year 1907, seventy-five of the one hundred and twenty were still alive. They had become governors of provinces, ministers and consuls in foreign lands, secretaries of boards of commerce and of agriculture, directors of telegraph companies, and managers of railroads and of railroad systems. It was indeed a rich contribution which they had made, and are still continuing to make, to the development of their native country.

Although the first educational commission

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is perhaps the most important body of young men ever sent out by a government to America, yet it has been succeeded by other groups of Chinese students. Some of these students have come privately and others have come as wards of the government, but their numbers have been so great from year to year that the presence of a Chinese in a school or college has ceased to be an object of special curiosity.

In comparing the Japanese and Chinese students who have been enrolled in the American schools and colleges, several contrasts and likenesses are made evident. The most prominent difference in respect to external characteristics is the greater readiness with which the former adopt the dress and manners of the Western world. The Japanese dresses *à la* European, and in excellent taste; the Chinaman still braids his cue, and wears his loose trousers and blouse. The Japanese is more easily denationalized; the Chinaman is constantly impressed with the duty of loving and serving the land that gave him birth and is giving him education. The latter learns the English language with greater ease, and uses it with greater facility; the former, after a residence of even five or six years, experiences,

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in the case of not a few individuals, difficulty in conducting an ordinary conversation. Both manifest much deference to authority, and are models of decorum and politeness. The Japanese belong relatively to a higher caste; the majority of the Chinese students are from the middle class of the empire.

In mental characteristics, the contrasts are less marked than in physical. The excellences and the defects of the two types of mind are similar. In each the memory is developed to a degree not commonly attained by an American school-boy; the Chinese draw forms and figures which they have once seen with marvellous accuracy. The superior development of the memory seems to weaken the growth of the logical faculties. The result is seen in the difficulty of conducting processes of thought. Intellectually, both are clear-sighted rather than far-sighted; and are distinguished for exactness in thought and statement. Considered as a whole, the Chinese make more rapid progress in linguistic, and the Japanese in mathematical, studies. The former are by temperament the more passive, the latter the more impulsive. Both are hard students, and, though seldom ranking first, maintain a creditable stand

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in their classes. In respect to moral character also, as well as intellectual, a high degree of similarity is obvious. Neither, as a body, is addicted to the use of liquors, or of tobacco, and both are free from the ordinary vices.

Foreign countries are giving an increasing number of students to America. The contribution is not confined to Japan or China, but includes India, as well as Mexico, South America, and Europe. In thirty-four American institutions, in the academic year 1908-9, were almost fifteen hundred foreigners. The offerings made by the great nations were as follows:

"Canada 242, China 193, Japan 158, Mexico 81, Great Britain and Ireland 71, Cuba 70, India 60, Germany 56, Argentine Republic 52, Turkey 51, and Russia 50." Of the 1,467 foreigners 460 "hail from North America, 458 from Asia, 313 from Europe, only 154 from South America, 64 from Australasia, and 18 from Africa."¹ The universities which contain the larger number are Pennsylvania, beginning with 225, and followed by Columbia 166, Cornell 157, Harvard 147, Yale 86, Massachusetts Institute of Technology 72, Northwestern 71, and Michigan 69.¹

¹ *Science*, October 1, 1909, p. 434.

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Cornell and Harvard draw the largest number of Chinese students, Columbia and Yale of Japanese, and California the largest number of men from India. One chief difficulty which natives of the Far East meet in coming to America for education lies in the heavy expense. The total annual cost of education for a Japanese youth at the University of Tokyo need not exceed one hundred dollars. For one hundred dollars he receives in general the same advantages which he receives for five hundred in American colleges. For many the cost is prohibitive.

Filipino students have been coming to America ever since America went into the Philippines. Each year of the last decade somewhat over a hundred have been in attendance at American schools and colleges at the expense of the Philippine government. These students have usually been preparing themselves to become teachers, engineers, physicians, farmers, or lawyers. The work of these Filipino students has on the average been good and in some cases of exceptionally high order.

If one were a prophet it would be proper to say that North America is to become a power in the education of South America. The in-

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creasing commercial, industrial, and governmental relationships between the two parts of the one Western Continent ensures a greater educational coöperation. The universities of Argentina, of Brazil, of Chile, of Peru, and of other less important South American states are not of first-rate rank. The people of these states are demanding a technical education. Although one might expect that in such Latin countries the tendency of training would be linguistic, the fact is that it is emphatically scientific. The best scientific training cannot be had in any technical school south of the equator or within many degrees north of that line. Therefore the tendency is inevitable toward the best schools of the United States. No less than fifty students enroll in the ordinary year from the Argentine Republic alone.

But the United States as a world-power in education does not simply receive students. Its worth as an educational force is greater in its going forth. This influence has usually been of a Christian missionary character. The purpose of offering merely education to India, to China, to Japan, to Turkey has not been a purpose of sufficient weight to give money or to send forth American men and women. The

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intellectual motive has not had a strong missionary value. The Christian church has used education as a means for carrying forward its own evangelistic work. Education has been to it a means to an end, although to many that means would have made of itself a principal end. But education and evangelism have been obliged to coöperate. The principles which underlie the education of foreign peoples are the same principles which underlie the Christianizing of these peoples. There are three principles, upon which education has been carried on by Americans in foreign countries in the last forty and more years, which are of special worth. These principles are concerned with the nature of education, with the nature of the peoples to whom education is offered, and also with the nature of the institutions, largely educational, through which the forces of civilization work.

America has found that education is one of the great forces for the uplifting of a foreign people. Never has this aim or force been more pregnant than in recent decades. For in aim education is the development of the individual, the enrichment of the community, and the ennoblement of the race; in method, education

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is the individual as an interpreter. In force and content education is love and truth; in result education is life devoted, enriched, and ennobled. Education is a movement towards perfection. As such it is often called classical. Education is also a movement by and towards a personality. As such it is called romantic. But whether classical or romantic, it is always vital and vitalizing. It may be or it may not be humanistic, but it is always human. It is designed to train the intellect to see, to judge, to reason, to compare, to weigh evidence, to infer; it is designed to make the heart gentle without weakness, strong without hardness, responsive without gushingness, large without visionariness; it is designed to make the will vigorous, achieving, obedient to the judgment, but it is designed to make conscience true to the intellect, sensitive to duty's command, sensitive to the commendation of duty done and sensitive also to the tooth of remorse. Education is concerned with life: it is also concerned with living. At Madura, in Southern India, is a school of theology. At Ahmednagar are a high school and a normal school and primary schools. These represent life. There are also technical schools; boys working in

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wood and brass and silver ; girls and women using Churchill's hand loom weaving common cloth, using looms in making rugs and throwing bobbins over pillows in making torchon lace, — these represent living.

The value of education, too, has in these recent years received illustration in the better understanding of the nature of the people to whom the United States is offering education. India is not China nor is China India, and neither is Japan, but considering Asia as a whole, having half of the population of the globe, and with diversities in race as great as Mongolian and Aryan, and in religion as great as Buddhist, Confucianist, Shintoist, and Taoist, there are certain general and common characteristics. These characteristics, however, even in the same people often seem to be contradictories. Asia is a mass, yet with great outstanding individualities and tribes. It is pantheistic; it is also sensualistic. It is independent, desiring to live alone, yet dependent upon the white man for what seem to the white man necessities. These people are children, simple in ways, yet mature, ancient, limited by superstition, without initiative, content to let well enough alone, and it is sometimes a pretty

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bad well enough. Children "a hundred years old," the inheritors of great literature, — Vedic hymns, Confucianistic, Hindu philosophies, Buddhistic books, — yet not five per cent can read and write their vernacular. Honest, no bankers are more worthy of trust, no accountants more accurate, no trustees more competent than the Chinese, yet Chinese officialdom is the creature of graft and the Chinese are as a people addicted to gambling. Unsympathetic, allowing a neighbor to die without help because of his belonging to another caste, yet they are free from jealousy and avarice, thoughtful, yet never able to accumulate thought.

The East bowed low before the blast,
In patient deep disdain;
She let the legions thunder past,
Then plunged in thought again.¹

Dealing with such elements, education has peculiar value. It detects the truth and falseness of pantheism, differentiating it at once from atheism and from theism. Education helps to individualize the mass, to make the impersonality of the East personal, to change dependence to independence both personal

¹ Matthew Arnold.

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and national, to make men wise, as well as learned, to enlarge interests and to deepen relations, to liberalize the mind, to make the heart sympathetic, to break down barriers, to conserve thoughts of men and of nations, and to inspire faithfulness.

The third principle which illustrates the power of the United States in education in foreign parts relates to the fact that civilization needs institutions to work on and to work by. Civilization forms and reforms institutions. Institutions are embodiments of thought. Without them thought is wasted. Institutions gather up reflections and project them into the future near or remote. Of such institutions the school and college are chief. The school and the college represent the higher standards in the progress of the community. They enhance the sense of the community. They create new industries and vivify old ones. They reënforce and adjust old ways to changing conditions. They give at once efficiency and culture.

These three principles, the nature of education in uplifting a people, the capacity of a people for receiving uplifting from education, and the principle that civilization needs insti-

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tutions to work on and to work by, of which the educational are chief, represent the forces by which the United States has gone forth into all the world as an educator. To write the history of the educational work of the United States in foreign parts is in no small degree to write the history of the mission work of the great churches of America in the last forty years. American churches have established colleges and universities and schools of every grade in Japan, China, India, Turkey, and all parts of Africa. Individual colleges like Yale and Oberlin have sought to rebuild themselves in China. Individual missionaries have been as truly founders of institutions as John Harvard was of the college on the bank of the Charles or Ezra Cornell of the institution above Cayuga Lake. The work of Dr. W. A. P. Martin in China is typical of hundreds of great teachers. Martin went to China as a missionary of the American Presbyterian Church in 1850. In 1869 he became the head of a school of interpreters which presently took on larger relationships and became known as Tung-Wen-Kung or Hall of Combined Learning. The school developed into a college and took on certain of the relations of a univer-

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sity. In the year 1898 Dr. Martin became President of the Imperial University of Peking.

China is still China and will remain China for an indefinite period, but Japan has become a western nation. In the reorganization of Japan it was the work of Brown, Verbeck, Hepburn, and other American teachers which laid social and educational foundations. Brown's school at Yokohama helped to train the men who made modern Japan. The inspiration for Japanese education has come from America, although the methods of the education have been derived from Germany. As I have already intimated it has been in recent years the presence of George Trumbull Ladd which has contributed to the strength of the Japanese educational forces. It was also the work of Joseph Neesima, a native Japanese who ran away and came to America, was educated at Andover and Amherst College, which, manifested in the founding of the Doshisha at Kyoto, has proved to be of mighty influence in the education of the Japanese nation.

The worth of the work of America as a world-power in education receives perhaps its strongest illustration in the establishment of

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Robert College. Robert College stands on the western shore of the Bosphorus, at a point where the old civilization and the new — the north and the south, the east and the west, the Christian faith and the faith of Islam — meet. It bears the name of a New York merchant who helped endow it. Its founder was Cyrus Hamlin, a Maine boy and a graduate of Bowdoin College. The college is placed under the protection of the United States. It flies the American flag. It has trained hundreds of Bulgarians and Armenians for service as clergymen, as statesmen, as physicians, as manufacturers, and as merchants. It has been a Harvard in being the first college to be established in the Turkish empire. It has been a Yale in being the mother of colleges. It has developed other colleges in Turkey, in Syria, and neighboring parts. It was the most vital single force in the creating of a new Turkey.

The United States in relations both of receiving students and of sending forth its men and women as teachers into foreign parts has become a great power in the education of the world. The increasing oneness of the world opens the opportunity to any progressive people of becoming a leader in such a move-

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ment. In holding such relationship the United States has peculiar advantages arising from its location, from its freedom from international entanglements, and from the generally recognized purity of its motives. Seldom is this country accused of seeking to obtain further territory in the East. The political freedom of America and its social democracy free it from suspicions which belong to monarchies. Into all the world the United States is going as a larger power in education, and to its schools and colleges a larger number of men will come in the following decades.

CHAPTER XV

GREAT PERSONALITIES

MATTHEW ARNOLD begins his essay on Emerson with these words: "Forty years ago, when I was an undergraduate at Oxford, voices were in the air there which haunt my memory still. Happy the man who in that susceptible season of youth hears such voices! they are a possession to him forever. No such voices as those which we heard in our youth at Oxford are sounding there now. Oxford has more criticism now, more knowledge, more light; but such voices as those of our youth it has no longer."¹

In this period have spoken great voices bringing great messages to the children of men. These voices have been great as have also been their messages, because they came forth from great men.

When this period began, Horace Mann had been dead less than a decade. His influence was and is still potent. His name has remained the rallying cry throughout these two-score

¹ Matthew Arnold, *Discourses in America*, pp. 138, 139.

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years. For the years succeeding his death, the influence of Mann in America has been quite similar to the influence of Arnold, following his death, in 1842. Possibly in America Mann's influence has been greater than was Arnold's in England, because the American people are more inclined to emphasize the worth of moral character. The reiterated emphasis which Horace Mann placed on the moral type of manhood and of education has helped to maintain, as it has helped to create, his educational leadership. This leadership, be it added, shows only few signs of passing.

Throughout this period undoubtedly the most commanding figure has been that of Charles William Eliot. The forty years of his term of service as President of Harvard College essentially are contemporaneous with the time covered by this history. He has seen much enlargement and enrichment in the period, and of it, it can truthfully be said, he has been a large part. He has viewed all sides of the educational movement. He has enriched the public school curriculum. He has lifted professional education by increasing standards of admission and of graduation. He has sought to make all education efficient,

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and he has carried the principle of liberty in education to a point where some believe it has become educational license and anarchy. But his work has been great, as his service has been prolonged.

President Eliot has represented confidence in the intellectual and ethical verities. The comprehensive intellectual verity is, of course, the truth itself. How absolute is the belief of President Eliot in the truth! It unites the assurance of the scientist and the conviction of the moralist. The "Veritas" of the College shield seems to write itself over his heart. Truth in intellect becomes truthfulness in his character. The intellectual verity is joined, too, with the ethical principle of honesty. The appearance expresses the reality and the reality corresponds to the seeming. His intellect and his conscience are united; duty waits promptly and effectively on vision.

With this confidence in the verities and the virtues is associated a belief in man, in man's capacities and abilities. Possibly such a belief in man is only an application of the confidence in the verities and the virtues. For are they not human attributes? Greatest of all the elements of this belief is the faith in freedom

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— in man's right to make for himself life's supreme and life's minor choices. He knows, as do all from Omniscience to the infant, the terrible perils of human freedom, but he also knows that the perils of intellectual or moral slavery are still more terrible. The risk of freedom he assumed for his students, like the counsel given in the marriage service, "reverently," and usually "discreetly." The elective system is the intellectual token and the voluntary chapel service the religious symbol of this faith in human freedom.

This trust in truth, in the moral virtues, and in man is so absolute that it gives serenity to character and consistency in method and work. This serenity, however remote in origin from the peace of the mystic, is quite akin to it. Without the philosophic basis of the belief of the Transcendentalists, it yet in its calmness reminds one of the greatest of that vanished school.

In President Eliot's character is the note of efficiency. He is an administrator and an executive. In the current struggle between efficiency and culture, — if there be any struggle, — his persuasiveness would be directed in favor of efficiency — of efficiency

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through culture rather than in favor of culture through efficiency. He is the man doing. I have heard one of the most famous Oxford scholars, in an Oxford common room, praise his aggressiveness and express wonder at his power of work. But those who stand yet more closely know well that in his goings forth are great powers of making adjustments and capacity for patience and taking pains. He has learned that in efficiency is included the power to wait as well as the power to do. Before the many became responsive to his bidding, he had been not discontent to stand out, like the Puritan statue on the Cambridge Common, alone in the cold and the dark, in the wet and the dry,—always calm and patient without bitterness, waiting for each new opportunity for human service.

As impressive a part as any of his manifold message is that which affirms in all administrative work the worth of the union of details and of principle. Great administrators are, of course, masters of principles and policies. A few administrators, and they not usually great, are masters of detail. Somebody must look after the minutiae of administration, and why not they? But the number of administrators

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who are masters both of profound and extensive policies and of slight particulars is small. When the administrator attempts to do both services one of three things usually happens: either policies suffer, or details are neglected, or the administrator dies and the administration breaks down. President Eliot has done for forty years both these services, and no one of these three evil consequences has followed. The intimacy of his knowledge of the affairs of some individual associates and of students is a constant surprise. His power, too, to hold and to apply for twoscore years, under trying conditions, great principles in education and in administration is unique.

A personality of similar commandingness is that of William Torrey Harris. In a superficial view, how unlike Eliot and Harris! Eliot's approach to the educational problem is from the side of practical valuation; Eliot's question is, "Is it good?" Harris's approach to the educational problem was from the side of philosophy; his question was "Is it true?" Yet in Harris, as there is in Eliot, was a union of the philosophical and of the practical, of the scientific and of the metaphysical, of the teacher and of the student. Deeply interested

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in the kindergarten, he was the father of the Concord Summer School of Philosophy. His reports as superintendent of public schools in St. Louis are among the most enlightening and impressive ever issued by a public school superintendent, and at the same time he was editing the *Journal of Speculative Philosophy*, the first journal of its kind published in the United States, and he continued to edit it till the end. He introduced nature study into the schools of St. Louis. He was a student of the Latin, of the Greek, and of the oriental classics; an expounder of Hegel, he was also interested in pure science, and was no mean critic in the fine arts. He applied natural law to the spiritual world, and he brought the vision of the spiritual world for a better seeing and valuation of things natural. The French government, in the year 1878, gave him the title of Officer of the Academy in recognition of his school reports, submitted at the great Exposition, and the same government, in the year 1889, gave him the title of Officer in Public Instruction. Becoming United States Commissioner of Education in 1889, for seventeen years he served in the office, in which individual initiative, personal power and pres-

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tige contributed great weight to the illustrating and suggesting of new methods of education. His reports were concerned with immediate problems, processes, undertakings, movements, yet the discussions which he made of current educational problems were supported by the strength of great and lasting principles and illumined by the light which his prolonged and noble experience offered. His last work was the editorship of the new Webster's International Dictionary. Three years before his death he said to me he had thirty-nine books which he wished to write, but the list of his writings, including pamphlets and important articles in papers and magazines, covers no less than four hundred and seventy-nine titles. The richness and diversity of the interests which his life embodied, and in which he found refreshment in the last years, are indicated in some subjects which he treated: Notes on Raphael's Transfiguration; Pestalozzianism, Fourteenth Annual Report, for year 1868; Outline of Hegel's "Phenomenology"; Coeducation of the sexes; German-English instruction; Industrial education; Listlessness in the schoolroom; The immortality of the soul; Nature *vs.* human nature, or the

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spiritual; Recreation for teachers; The philosophy of nature; Grammar as intellectual culture study; Platonic dialectic; The high school; The metaphysical calculus; The three stages of theoretical culture; The relation of American colleges to the public schools; A national university; The study of evolution in education; Culture and discipline *vs.* information and dexterity; Methods of discipline and instruction; Pedagogics as a province of education; Elective studies in schools and colleges; Equivalents in a liberal course of study; Professor Seeley on the British race; Do the public schools educate children beyond the position which they must occupy in life? How to improve the qualifications of teachers; Other institutions besides the school as instrumentalities of culture; On the function of the study of Latin and Greek in education; Compulsory education in relation to crime and social morals; Social science and social conditions; Religion in art; The spiritual sense of Dante's "Divina Commedia"; The educational value of manual training; The philosophic aspects of history; The place of university extension in American education.¹

¹ *Report of the Commissioner of Education, 1907, pp. 33-66.*

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Dr. Harris, like Dr. Eliot, lived to see the great work which he had done recognized as a part of the noblest service of and to the generation in which he had lived and which he had so nobly served.

The life and service of Daniel Coit Gilman incarnate the highest educational ideals and movements of our time. It is to the advantage of the reader that one is able to extract from Gilman's various essays facts and interpretations which are essentially autobiographical. Of himself in preparation for his great work at Johns Hopkins and in the performance of that work itself, he says, —

I was a close observer of the changes which were introduced at Yale in the fifties and sixties, the grafting of a new branch — “a wild olive,” as it seemed — upon the old stock. Then I had some experience, brief but significant, in California, as the head of the State University, at a time when it was needful to answer the popular cry that it should become chiefly a school of agriculture, and when it was important to show the distinction between a university and a polytechnic institute. Then came a call to the East and a service of more than a quarter of a century in the organization and development of a new establishment. These are

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three typical institutions. Yale was a colonial foundation, wedded to precedents, where an effort was made to introduce new studies and new methods. California was a State institution, benefited by the so-called agricultural grant, where it was necessary to emphasize the importance of the liberal arts, in a community where the practical arts were sure to take care of themselves. Baltimore afforded an opportunity to develop a private endowment free from ecclesiastical or political control, where from the beginning the old and the new, the humanities and the sciences, theory and practice, could be generously promoted.¹

But it was not simply the opportunities which Gilman had for observation which helped him unto his career, but also it was the urgent lack of fitting opportunity which he himself experienced that promoted his choice of a field of work. Of this need of opportunities for more instruction he himself says:—

After taking the degree of Bachelor of Arts in Yale College, I was undecided what profession to follow. The effect of the collegiate discipline, which “introduced” me, according to the phrase of the day, to not less than twenty subjects in the senior year, was to arouse an interest of about equal intensity in as many branches of knowledge. I re-

¹ *The Launching of a University*, p. 4.

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mained a year at New Haven as a resident graduate. President Woolsey, whom I consulted, asked me to read Rau's political economy and come and tell him its contents; I did not accept the challenge. I asked Professor Hadley if I might read Greek with him; he declined my proposal. Professor Porter did give me some guidance in reading, especially in German. I had many talks of an inspiring nature with Professor Dana — but on the whole I think that the year was wasted. The next autumn I went to Cambridge and called upon President Sparks, to learn what opportunities were there open. 'You can hear Professor Agassiz lecture,' he said, 'if you want to; and I believe Mr. Longfellow is reading Dante with a class.' I did not find at Cambridge any better opportunities than I had found at New Haven — but in both places I learned to admire the great teachers, and to wish that there were better arrangements for enabling a graduate student to ascertain what could be enjoyed and to profit by the opportunities.¹

The work which Gilman did in filling this need of graduate study represents his most conspicuous contribution to modern education. He himself says that before a university could be launched there were six requisites: an idea, capital, a definite plan, an able staff, books and apparatus, and students. The capi-

¹ *The Launching of a University*, pp. 8, 9.

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tal was furnished through Johns Hopkins, but for the other five requirements Gilman was himself largely responsible. Of these five, the gathering together of a proper faculty was the most important. His purpose was to secure the best men for the places which they were asked to fill. The endeavor was fraught with many anxieties and perplexities. Not a few people of Baltimore would have made the institution local. Churches sought to impose ecclesiastical traditions upon the search for truth. Men of mark who were asked to accept were not able, and not a few who were not men of mark but of abounding promise did cast in their lot with the new institution. Gilman says:—

It is enough to remember that Sylvester, Gildersleeve, Remsen, Rowland, Morris, and Martin were the first professors. As a faculty 'we were seven.' Our education, our antecedents, our peculiarities were very different, but we were full of enthusiasm, and we got on together without a discordant note. Four of the six are dead; one is still as vigorous and incisive as ever; one is now President. An able corps of associates, lecturers, and fellows were appointed with the professors, and they were admirable helpers in the inception of the work.¹

¹ *The Launching of a University*, p. 14.

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The results of the service which, for twenty-five years, Gilman led and inspired are a part of our educational history. For almost twenty years, Johns Hopkins was the most important place for the training of teachers in American colleges. The men whom Adams educated in history, Brooks in biology, Rowland in physics, Remsen in chemistry, have influenced the higher education in America more profoundly than any other group of men from any institution in the same period.

But not to the training of men alone was the university of Gilman devoted. The narrow bonds of truth have been made less narrow. Gilman has himself given a slight résumé of some parts of that work.

Experimental psychology was here introduced. Bacteriology early found a home among us. The contributions to chemistry have been numerous and important. Here was the cradle of saccharine, that wisely diffused and invaluable concentration of sweetness, whose manufacturers unfortunately do not acknowledge the source to which it is due. In the physical laboratory, light has been thrown upon three fundamental subjects: the mechanical equivalent of heat, the exact value of the standard ohm, and the elucidation of the nature of the solar

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spectrum. For many years this place was the chief seat in this country for pure and advanced mathematics. The study of languages and literature, Oriental, classical, and modern, has been assiduously promoted. Where has the Bible received more attention than is given to it in our Semitic department? where the study of ancient civilization in Mesopotamia, Egypt, and Palestine? where did the Romance languages, in their philological aspect, first receive attention? To American and institutional history persistent study has been given.¹

Gilman died full of years and of usefulness, still a young man, though his years were more than seventy. He was not only, to use the fine old English phrase, a scholar and a gentleman, but also he was a man of light and of leading.

In contrast with the embodiment in Gilman of the movement for the highest education and of the movement for research, stands the monumental career of Angell, — Angell of Michigan, one involuntarily adds, — Michigan, the state and the university. It has been a career of almost forty years, given first to the university and through the university to the state,

¹ *The Launching of a University*, pp. 139, 140.

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and through both state and university to the nation and to the world. The service of Angell represents the history of higher education, to the great body of the people. It stands for sane leadership, and hearty sympathy with those led. The scholarship of the university has been largely, though by no means entirely, a scholarship of the text-book, yet of a good though not high order of excellence. The efficiency of the university in directing instruction in the state has been constant, great, and on the whole, wise. The university was the first, and none is found more constantly successful, to represent the idea that the university is the crown of the system of public education of the commonwealth. It is an example and inspiration to the educational authorities of other states. Its influence in promoting the higher education for thirty years has been greater than that of any other state university.

Towards this result many influences have contributed, the chief among them being Angell himself. He has been watchful, sagacious, aggressive. He has been a diplomat spelled with both a large and a small *d*. He has had an eye, a heart, and a head for the

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value of compromise and of conciliation. The evil effect of the system of compromise has been largely eliminated by the purity of his character, by the nobility of his purposes, and by the generous love which he had for his students, for his fellow-workers and all men. What President Day was to Yale and Nott to Union in the earlier decades of the nineteenth century, that has Angell been both to the university and the state of Michigan, and to the whole Mississippi Valley in these last decades.

There have been founded in the last half-century five institutions of the higher education of unique or of commanding importance: Cornell, Johns Hopkins, Clark University, the University of Chicago, and Stanford University. Of the five, that which awakened perhaps the keenest public interest at the time of its foundation was the University of Chicago. This interest arose largely from the place occupied in American life by its founder, John D. Rockefeller. But this occupancy of popular interest was shared by its first president, who also could quite as properly be called its founder as Mr. Rockefeller himself. Mr. Rockefeller would be the first to recognize the primary place of President Harper.

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President Harper was known as President of the University of Chicago. Yet, he was not an executive by his own choice. Years ago he made to me the remark, with much emphasis, that he would gladly lay down his office as president if it were possible. He would vastly prefer, he said, the work of a teacher. This remark is of great significance. For the evidence seems to indicate that, great as he was as a college president, he was yet greater as a teacher. He was, in a large sense, responsible for a marvelous creation. But there was put into his hand material, and he was surrounded by conditions which made the creation, under his guidance, natural and inevitable. For many years previous to the foundation of the University of Chicago in 1890, members of the Baptist Church had discussed with much thoroughness the question of the foundation of a university. At one time, it seemed that the foundation would be laid in, or near, New York City. Suggestions were offered respecting the removal of the University of Rochester and making this most honorable and historic school the corner-stone of a great foundation. It was finally decided to make the beginning in Chicago. In these preliminary investiga-

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tions, Mr. John D. Rockefeller bore, either actively or through others standing for him, an important part. The conditions pointed to William Rainey Harper as the active administrator of the undertaking. In the undertaking, he and Mr. Rockefeller worked from the beginning. The personal respect which each had for the other was, apparently, exceeded only by the effectiveness of their official relationship. On the tenth anniversary of the university, Mr. Rockefeller said, in an address :—

The University of Chicago would not be in existence to-day had it not been for our honored President, William Rainey Harper. The friends of the university gave him their confidence and highest regard from the first. It is needless to say that he has shown himself entirely worthy of it, and that he has always proved himself eminently fitted for his high position. No words of mine can give you a more favorable impression of President Harper in respect to every quality that goes to make him what he is, one of the foremost leaders and educators of our time. Indeed, I do not know where we could have found another so well qualified for this important work. I am sure I express the wish of all present here to-day, and a multitude of friends throughout our land and other lands, that his life and health may long be spared to continue this great

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work which he has in this very brief period brought to such a high state of perfection, and which already ranks with the leading universities of our country and the world. We, the friends of the university, assure President Harper of our continued coöperation and support.¹

It is seldom that the founder of a university, in a material sense, is able to utter words so enthusiastic regarding his co-founder in a special intellectual and executive sense.

The result of the coöperation of President Harper with Mr. Rockefeller, and the result of the labors of the trustees and members of the faculties of the University of Chicago, is embodied in a great result. The result is the beginning of what is to be a very great university. As President Harper himself said, in a report made at the conclusion of the first decade: "The first ten years have seen the foundations laid and the superstructure erected in the rough. The second ten years will witness the development of the æsthetic side of life and thought." In its almost twenty years, the university has proved to be an illustration, to use Professor George H. Palmer's phrase, of "the glory of the imperfect." The

¹ *University of Chicago Record*, vol. vi, p. 113.

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development has been irregular, many methods of administration have been unwise, the general conditions of administration obtaining are distinguished by their complexity, elaborateness, and pecuniary expensiveness. The value of the instruction, of both graduate and undergraduate, given in the various departments, represents extremes of worthiness and of unworthiness. But, taken all in all, the consummate result is noble. In his decennial report, President Harper devotes a paragraph to the more important experiments, of which he names ten. The most important of these experiments is, without doubt, the establishment of the summer quarter as an organic part of the university work.

It however seems to me evident that President Harper was greater as a teacher than as an executive. He was an interpreter and expositor. In his special field of Semitics he was recognized by his colleagues, not as a great scholar, but as a most impressive and inspiring teacher. Of the value of this profession he had a high estimate. In addressing his fellow teachers, he once said: "It [teaching] is the highest career man or woman is permitted to follow. The greatest of all men was a teacher,

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a man who employed the methods of a teacher, and was recognized as such by all who met Him. In view of the achievements of the past, and the possibilities and opportunities of the future, let us 'gird our loins,' put on new strength, and take up the burden of life for another year with new courage and with a never-failing faith in the dignity and value of the work which God has given us to do." I am sure that, great as he was as a president, he would prefer to be regarded as yet greater as a teacher.

It should be said that President Harper was personally the best of good fellows, as a man giving the impression of truth and loyalty, humble in his interpretation of himself and of his work, vigorous and alert in body, as well as in mind, until the smiting hand of weakness was put upon him, and laborious, — it must be said, — to a degree which probably shortened by decades his great career.

The influence of G. Stanley Hall has been, throughout this period, unique. It has been an influence devoted largely to the training of men, such an influence as the elder Agassiz represented. It has been the influence, although less widespread, if as strong, which

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Gilman represented in Johns Hopkins. Men from Clark University have gone forth as teachers throughout all the land.

Hall's influence, too, has been an influence lying much in the written and spoken word. This word has been cultural, suggestive, productive, and above all, inspiring. It has been supported by and filled with great learning. The message has been declared with the assurance of conviction. The thoroughness of the learning has been sometimes questioned and the validity of inferences doubted, but the inspiring quality of the utterance, both oral and written, has been constantly, generally, and heartily recognized. President Hall, through his writing and speaking, sets the intellectual machinery of the reader or hearer to work upon the pedagogical and administrative problems of public and higher education. Of the work done in the first decade of Clark University, President Hall has himself said: "Scientific work must be weighed and not measured, so that numbers tell but little. Clark University has been instrumental in training well nigh three hundred professors or special academic instructors, has numbered over twelve hundred different persons enrolled

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in its summer school, not counting the hundreds who have attended more than one session. These, especially the former, are in a sense our epistles known and read of all men. The other output of a university like ours is its scientific work, and here we have five hundred publications based upon work done here, of which twenty-five are books.”¹ President Hall has also indicated a great primary fact not only for American education, but also for American life, and not only for the education and the life of America but also of the whole world, in saying, “The best of all uses of public benefactions is, not for charity to the poor or even the sick and defective, noble and Christ-like as those charities are, not for lower education or religion, beneficent as these are, but rather for affording the very best opportunities for the highest possible training of the very best minds in universities, because in training these the whole work of church, state, school, and charity is not only made more efficient, but raised to a higher level, and in this service all other causes are at the same time best advanced.”²

¹ *Clark University, Decennial Celebration*, pp. 52-53.

² *Ibid.*, p. 56.

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At the meeting of the National Educational Association held in Minneapolis in July, 1902, President Harper, speaking of Colonel Francis W. Parker, said "that he had built foundations broad and strong for future work in the field of elementary education, that he had made noteworthy contributions to the cause of public school education, that indeed he was one of the great leaders of the last quarter of a century is everywhere acknowledged."¹ These words, which might, in so many essential respects, be applied to their author himself, introduce one of the most vigorous personalities of the last two score years. The career of Francis W. Parker was in some respects curiously like Horace Mann's. Each began his great work in Massachusetts; each suffered from the antagonism of the "Boston Masters"; each served the nation in conspicuous public ways, — one in the House of Representatives, and one in the Civil War. Each removed finally to the West, and each there finished his great life's task. Neither was the founder or exponent of new ideas, but rather a revolutionist in method. Mann emphasized, with mighty

¹ *Addresses and Proceedings of the National Educational Association*, 1902, pp. 349, 350.

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enthusiasm and constant iteration, the value of character, especially moral character; Parker emphasized the worth of the child as a child, and the consequent duty of training him by natural methods into a natural life. Parker was, to the day of his death, a boy; a boy in his enthusiasm, passions, prejudices, progress, and regress. This quality he shared with most other great teachers, for as Henry Sidgwick, writing of Bowen of Harrow, says, boyishness "is the first, second, and third requisite for a schoolmaster."¹

A strong personality, he inspired other personalities; an individualist, he defied many recognized canons. Without a large, consistent body of doctrine, he stirred teachers by his individualistic, oral messages. He constantly and deeply emphasized the infinite preciousness of the character of the child, and thus he magnified the worth of the teacher's work.

For more than sixty years the name of Mary Lyon has been a name of leadership in the education of American women. It has stood for duty interpreted in terms of religion. The most influential woman in education since

¹ Sidgwick's *Memoir*, p. 45.

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Mary Lyon died in 1849 is Alice Freeman Palmer. In fact, President Eliot said at her funeral that her career "is unmatched by that of any other American woman." He also declared that her life and labors are the best example thus far set before American womanhood. Her life has been written in a book of idyllic charm by her great husband. It is a book from which one may feel free to quote because of its impersonality. After he gave a Commencement address upon his wife, a student who heard it made the inquiry, "What was the relation between Professor Palmer and the Mrs. Palmer of whom he has been speaking?" A similar impersonality pervades his biography. I therefore can best present Mrs. Palmer by certain extracts from the interpretations made of her character and work by Professor Palmer himself.

It is said that hers was "a nature somewhat unusual, endowed with great powers whose exercise brought constant pleasure; endowed with a heart which could not be happy alone; with an originality that struck out its own ways of working and freshened every little act along its path; and with a piety that hourly hungered and thirsted after righteousness. In

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this season of what I have called her self-expression, delight and duty moved hand in hand. Each heavy-laden morning opened to her its opportunities and sent her forth gladly to meet its 'good times.' She would certainly never have wished others to follow in her track, but only to be earnest and joyous in their own. Laziness and conventionality she did indeed abhor, and thought most people only half awake. She liked to live in every fibre of her being, and so she vitalized all around. . . . She was a woman of action, ideals, and practical adjustments. . . . She was the same person everywhere. Led by broad popular sympathies to improve the conditions of her sex, she preserved in a public field the simplicity, ease, dignity, and refinement which graced her fireside. She did not turn to occupations outside the home because those within it were distasteful; but powers already exceptional when she entered that home became there so refreshed, gladdened, and enlarged that they overflowed the usual bounds and ran forth in multitudinous blessing. . . . She was not a bookish person, but primarily a woman of affairs who fed herself best by direct observation of men and things.

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Yet from books she derived great stimulus and was always longing to come at them more closely. Her actual dealings with them were peculiar. They were entirely subordinated to her life and never acquired rights of their own. . . . She believed continuous work to be conducive to health and she proved it so by practice. Beginning weak and working steadily, often unable to secure proper safeguards against exhaustion, she escaped all the ills from which idle women suffer, acquired remarkable hardihood, and almost every year found herself sturdier than before. If there is any one lesson which Mrs. Palmer's life pre-eminently teaches, it is the life-preserving influence of persistent, severe, and judiciously managed labor. . . . At times of business she did not look much before or after, but straight into. This concentration I regard as one of the surest indications of intellectual force. . . . Her moral nature was grounded in sympathy. Beginning early, the identification of herself with others grew into a constant habit, of unusual range and delicacy. I have shown how in her childhood each member of the family was called on to contribute whatever he had to the common stock, how each felt himself

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responsible for all, and separate interests were unknown. This enforced public sense, behind which she did not at that time go, became in later years a conscious principle guiding her life, and one which she longed to see guiding the lives of all. To get anything at the cost of another was impossible for her; to keep anything which another might need, painful. She suffered with those whom she saw suffer. Righteousness is, after all, merely the daily love of man — of man in his divinity, weakness, aspirations, errors, interests, and idiosyncrasies. . . . She was essentially true, hating humbug in all its disguises. Being a keen observer, she knew a fact when she saw it and did not juggle with herself by calling things what they are not. Her love of plainness and distaste for affectation were forms of veracity. . . . In every call of human need she heard the voice of God, summoning her to free his children from selfishness and woe. The love of God, it has been well said, is devotion to duty intensified in intellectual clearness and in emotional strength by the conviction that its aim is also that of a great personality. This courage-bringing conviction she had. All her morality was therefore touched with a divine

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emotion. Her aims were unified. In solitude and suffering she was not alone. She knew that the stars in their courses shone on her designs, and accessible love throbbed through all things.”¹

These great personalities had certain qualities and elements in common. They embodied greatness of intellect, of course, but a greatness in heart greater than in intellect, and comprehensively, a greatness of noble character.

They were, as a class, sane, whole, sound. They were free from those peculiarities which make the unique and rich career of such a leader as Mark Pattison conspicuous. Most of them were devoid of genius. Each had a desire to be useful. They were opportunists in the best sense; and yet possessed of a sense of idealism, persistent, yet yielding in administration, yielding, yet persistent; and always inspired by highest public aims. Few were great scholars, although each and all were in deep sympathy with scholars and appreciative of scholarship. Each was a rich and fine personality, and each definitely embodied the

¹ *The Life of Alice Freeman Palmer*, pp. 202, 227, 229, 291, 316, 340, 342, 346.

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best qualities of the gentleman or the lady. American education has not enlarged the field of learning as has the German, but no land has in its education produced greater or finer personalities than America.

CHAPTER XVI

CONCLUSION

WHEN one reviews comprehensively the history of these forty years, he asks the inevitable question, "Does the close of the period bear witness to a better education than the beginning beheld?" In answer he is obliged at once to discriminate.

This history makes evident the conclusion that the influence of the public schools over the vast body of the people has greatly enlarged and improved. It is evident that the knowledge which the ordinary people receive is much broader. The ordinary man knows more about the world, its history, its peoples, and its manifold and diverse life; he learns with greater facility, and his possession of facts is of larger variety. The more frequent and swifter communication between different parts of the globe has contributed to this result. The globe grows smaller, and its inhabitants are united in a closer neighborliness. This increase of learning is the result, in part,

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of the improved methods of teaching and of discipline. The teacher is of no greater natural power or charm; — the growth of the people in riches and in a sense of world-relations has not enlarged his capacities to an appreciable degree. The last half-century is not unlike in this respect to other half-centuries or whole centuries of human history. Nature remains a more important element in character than nurture. But the method of teaching and of government has greatly improved. This improvement is well summed up in the word “natural.” The public school has learned to take the pupil as he is, and to train him by wholesome rules and sound principles unto a larger learning and a richer life. The improvement in discipline and government lies in the casting out of chastisement as punitive and in the introduction of it as educative. The effectiveness of both teaching and government has been enhanced by the improvement in environment. Schoolhouses have become more fit, with clearer light and purer air, with seats more hygienic and all sanitary conditions made more satisfactory. Playgrounds are laid out larger and plays have received distinct encouragement, both in number and variety, from all teachers.

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Though all this seems to be the comprehensive truth for nine tenths of all the people, I yet am constrained to believe that for the remaining one tenth, and that the upper, has occurred no corresponding advantage. The best part of any community of any age or stage of progress can usually be left to care for its own interests. The best boys and girls in a class can, in most instances, be left to their own destinies. They take care of themselves; their strength, their enthusiasm will not lead them far astray.

The same discrimination, in some respects, may be made likewise in regard to the change in the value of the higher education. The best men in the college class of a generation or more ago were well educated. They had less knowledge than the best men of to-day at graduation, but they had clearer power of thinking. They may have had less discrimination, less variety of knowledge, less appreciation of æsthetic values in literature, but they certainly had as great intellectual weight and force. Their intellectual forces, some would say, were indeed greater. The ordinary men of the college class have, like the best men, a wider intellectual outlook than had their fathers, but it

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is to be added that their intellectual power has not increased. They do have greater culture, but they may not have greater intellectual weight. The reason for this failure, if failure it be, lies in the greater diversity of interests which college life has taken on and also in the greater independence of the student. He is left free not to study, if not to study be his will.

It is interesting to find that a not dissimilar interpretation may be made regarding the American public school teacher. I doubt whether the best teachers of to-day are abler or more efficient than were the best teachers of a generation ago. Best teachers have always been great personalities. Personality is the chief element in teaching as in all work. But the rank and file of the staff has improved through fuller knowledge and more constant use of improved methods of teaching. The normal school has given efficiency to a large body of teachers.

It may be added that these changes or this lack of changes in the educational process of forty years, are not unlike the changes which have occurred among the people of the world. The best people of a generation ago are like

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the best people of the present day, but the great body of the people of the two periods is unlike. A distinct lifting of the community has taken place. The average order of ability and of attainment has become higher. The single mountain peaks or ranges may be no higher, but the plateau has been raised. The ocean level of humanity has lifted. The age of the people has come and is yet to come in a greater fullness. Of this elevation, improved education is in part the result, but of it also improved education is more distinctly the cause.

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